

1001

Gly Pro Ala Ala Cys Glu His Pro His Gln Ala Ala Ala Gln Thr Cys  
165 170 175

Gly Ala Trp Ser Ser Gly Cys Arg Gly Met Leu Arg Ser Trp Ala Met  
180 185 190

Arg	Pro	Ser	Gly	Ser	Lys	Ser	Cys	Ala	Gly	Ser	Arg	Pro	Gly	Ser	Glu
		195					200					205			

Arg Asp Arg His Ala Cys Arg His  
210 215

<210> 1026

<211> 604

<212> PRT

<213> Homo sapiens

**<220>**

<221> SITE

<222> (303)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

<222> (359)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1026

Gly Thr Ser Ser Asp Ile Leu Lys Gly Asn Phe Ser Ile Arg Thr Ala  
1 5 10 15

Lys Met Gln Gln His Val Cys Glu Thr Ile Ile Arg Ile Phe Lys Arg  
20 25 30

His Gly Ala Val Gln Leu Cys Thr Pro Leu Leu Leu Pro Arg Asn Arg  
35 40 45

Gln Ile Tyr Glu His Asn Glu Ala Ala Leu Phe Met Asp His Ser Gly  
50 55 60

Met	Leu	Val	Met	Leu	Pro	Phe	Asp	Leu	Arg	Ile	Pro	Phe	Ala	Arg	Tyr
65					70					75					80

Val Ala Arg Asn Asn Ile Leu Asn Leu Lys Arg Tyr Cys Ile Glu Arg  
85 90 95

Val Phe Arg Pro Arg Lys Leu Asp Arg Phe His Pro Lys Glu Leu Leu  
100 105 110

1002

Glu Cys Ala Phe Asp Ile Val Thr Ser Thr Thr Asn Ser Phe Leu Pro  
 115 120 125  
 Thr Ala Glu Ile Ile Tyr Thr Ile Tyr Glu Ile Ile Gln Glu Phe Pro  
 130 135 140  
 Ala Leu Gln Glu Arg Asn Tyr Ser Ile Tyr Leu Asn His Thr Met Leu  
 145 150 155 160  
 Leu Lys Ala Ile Leu Leu His Cys Gly Ile Pro Glu Asp Lys Leu Ser  
 165 170 175  
 Gln Val Tyr Ile Ile Leu Tyr Asp Ala Val Thr Glu Lys Leu Thr Arg  
 180 185 190  
 Arg Glu Val Glu Ala Lys Phe Cys Asn Leu Ser Leu Ser Ser Asn Ser  
 195 200 205  
 Leu Cys Arg Leu Tyr Lys Phe Ile Glu Gln Lys Gly Asp Leu Gln Asp  
 210 215 220  
 Leu Met Pro Thr Ile Asn Ser Leu Ile Lys Gln Lys Thr Gly Ile Ala  
 225 230 235 240  
 Gln Leu Val Lys Tyr Gly Leu Lys Asp Leu Glu Glu Val Val Gly Leu  
 245 250 255  
 Leu Lys Lys Leu Gly Ile Lys Leu Gln Val Leu Ile Asn Leu Gly Leu  
 260 265 270  
 Val Tyr Lys Val Gln Gln His Asn Gly Ile Ile Phe Gln Phe Val Ala  
 275 280 285  
 Phe Ile Lys Arg Arg Gln Arg Ala Val Pro Glu Ile Leu Ala Xaa Gly  
 290 295 300  
 Gly Arg Tyr Asp Leu Leu Ile Pro Gln Phe Arg Gly Pro Gln Ala Leu  
 305 310 315 320  
 Gly Pro Val Pro Thr Ala Ile Gly Val Ser Ile Ala Ile Asp Lys Ile  
 325 330 335  
 Ser Ala Ala Val Leu Asn Met Glu Glu Ser Val Thr Ile Ser Ser Cys  
 340 345 350  
 Asp Leu Leu Val Val Ser Xaa Gly Gln Met Ser Met Ser Arg Ala Ile  
 355 360 365  
 Asn Leu Thr Gln Lys Leu Trp Thr Ala Gly Ile Thr Ala Glu Ile Met  
 370 375 380

1003

Tyr Asp Trp Ser Gln Ser Gln Glu Glu Leu Gln Glu Tyr Cys Arg His  
 385 390 395 400

His Glu Ile Thr Tyr Val Ala Leu Val Ser Asp Lys Glu Gly Ser His  
 405 410 415

Val Lys Val Lys Ser Phe Glu Lys Glu Arg Gln Thr Glu Lys Arg Val  
 420 425 430

Leu Glu Thr Glu Leu Val Asp His Val Leu Gln Lys Leu Arg Thr Lys  
 435 440 445

Val Thr Asp Glu Arg Asn Gly Arg Glu Ala Ser Asp Asn Leu Ala Val  
 450 455 460

Gln Asn Leu Lys Gly Ser Phe Ser Asn Ala Ser Gly Leu Phe Glu Ile  
 465 470 475 480

His Gly Ala Thr Val Val Pro Ile Val Ser Val Leu Ala Pro Glu Lys  
 485 490 495

Leu Ser Ala Ser Thr Arg Arg Arg Tyr Glu Thr Gln Val Gln Thr Arg  
 500 505 510

Leu Gln Thr Ser Leu Ala Asn Leu His Gln Lys Ser Ser Glu Ile Glu  
 515 520 525

Ile Leu Ala Val Asp Leu Pro Lys Glu Thr Ile Leu Gln Phe Leu Ser  
 530 535 540

Leu Glu Trp Asp Ala Asp Glu Gln Ala Phe Asn Thr Thr Val Lys Gln  
 545 550 555 560

Leu Leu Ser Arg Leu Pro Lys Gln Arg Tyr Leu Lys Leu Val Cys Asp  
 565 570 575

Glu Ile Tyr Asn Ile Lys Val Glu Lys Lys Val Ser Val Leu Phe Leu  
 580 585 590

Tyr Ser Tyr Arg Asp Asp Tyr Tyr Arg Ile Leu Phe  
 595 600

&lt;210&gt; 1027

&lt;211&gt; 459

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1004

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1027

Thr Ser Cys Gly Ile Asn Thr Lys Phe Thr Ser Lys Glu Pro Ile Phe  
 1 5 10 15

Leu Thr Gln Leu Leu His Phe Ser Asn Leu Xaa Gln Glu Tyr Lys Ile  
 20 25 30

Asn Ser Arg Leu Leu Gln Asn Ile Leu Asp Ala Gly Phe Gln Met Pro  
 35 40 45

Thr Pro Ile Gln Met Gln Ala Ile Pro Val Met Leu His Gly Arg Glu  
 50 55 60

Leu Leu Ala Ser Ala Pro Thr Gly Ser Gly Lys Thr Leu Ala Phe Ser  
 65 70 75 80

Ile Pro Ile Leu Met Gln Leu Lys Gln Pro Ala Asn Lys Gly Phe Arg  
 85 90 95

Ala Leu Ile Ile Ser Pro Thr Arg Glu Leu Ala Ser Gln Ile His Arg  
 100 105 110

Glu Leu Ile Lys Ile Ser Glu Gly Thr Gly Phe Arg Ile His Met Ile  
 115 120 125

His Lys Ala Ala Val Ala Ala Lys Lys Phe Gly Pro Lys Ser Ser Lys  
 130 135 140

Lys Phe Asp Ile Leu Val Thr Thr Pro Asn Arg Leu Ile Tyr Leu Leu  
 145 150 155 160

Lys Gln Asp Pro Pro Gly Ile Asp Leu Ala Ser Val Glu Trp Leu Val  
 165 170 175

Val Asp Glu Ser Asp Lys Leu Phe Glu Asp Gly Lys Thr Gly Phe Arg  
 180 185 190

Asp Gln Leu Ala Ser Ile Phe Leu Ala Cys Thr Ser His Lys Val Arg  
 195 200 205

Arg Ala Met Phe Ser Ala Thr Phe Ala Tyr Asp Val Glu Gln Trp Cys  
 210 215 220

Lys Leu Asn Leu Asp Asn Val Ile Ser Val Ser Ile Gly Ala Arg Asn  
 225 230 235 240

Ser Ala Val Glu Thr Val Glu Gln Glu Leu Leu Phe Val Gly Ser Glu



1005

	245		250		255
Thr Gly Lys Leu Leu Ala Val Arg Glu Leu Val Lys Lys Gly Phe Asn					
	260		265		270
Pro Pro Val Leu Val Phe Val Gln Ser Ile Glu Arg Ala Lys Glu Leu					
	275		280		285
Phe His Glu Leu Ile Tyr Glu Gly Ile Asn Val Asp Val Ile His Ala					
	290		295		300
Glu Arg Thr Gln Gln Gln Arg Asp Asn Thr Val His Ser Phe Arg Ala					
	305		310		315
Gly Lys Ile Trp Val Leu Ile Cys Thr Ala Leu Leu Ala Arg Gly Ile					
	325		330		335
Asp Phe Lys Gly Val Asn Leu Val Ile Asn Tyr Asp Phe Pro Thr Ser					
	340		345		350
Ser Val Glu Tyr Ile His Arg Ile Gly Arg Thr Gly Arg Ala Gly Asn					
	355		360		365
Lys Gly Lys Ala Ile Thr Phe Phe Thr Glu Asp Asp Lys Pro Leu Leu					
	370		375		380
Arg Ser Val Ala Asn Val Ile Gln Gln Ala Gly Cys Pro Val Pro Glu					
	385		390		395
Tyr Ile Lys Gly Phe Gln Lys Leu Leu Ser Lys Gln Lys Lys Lys Met					
	405		410		415
Ile Lys Lys Pro Leu Glu Arg Glu Ser Ile Ser Thr Thr Pro Lys Cys					
	420		425		430
Phe Leu Glu Lys Ala Lys Asp Lys Gln Lys Lys Val Thr Gly Gln Asn					
	435		440		445
Ser Lys Lys Lys Val Ala Leu Glu Asp Lys Ser					
	450		455		

&lt;210&gt; 1028

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1028

Gln Arg Gly Phe Tyr Ala Asn Ala Leu Thr Ser Ala Leu Gly Asn Glu

1

5

10

15

1006

Arg Val Thr Ser Ala Ser Ser Leu Ala Ser Phe Leu Val Leu Glu Arg  
                   20                  25                  30  
 Leu Thr Asn Val Cys His Ser His Lys Cys Phe Glu Leu Asp Leu Cys  
                   35                  40                  45  
 Asp Leu Cys Phe Phe Ser Phe Ser Leu Glu Ser Glu Tyr His Cys Leu  
                   50                  55                  60  
 Pro Pro Arg Ser  
                   65

<210> 1029  
 <211> 215  
 <212> PRT  
 <213> Homo sapiens

<400> 1029  
 Tyr Pro Leu Thr Pro Ala Pro Ala Pro His Asp Pro Ser Pro Arg Ala  
   1                  5                  10                  15  
 His Gly Arg Gly Asp Asp Val Thr Gln Ala Thr Ala Leu Thr Ser His  
                   20                  25                  30  
 Ile Thr Val Val Met Ala Ser Arg Gly His Val Asp Val Thr Lys Arg  
                   35                  40                  45  
 Tyr Ser Asp Gly Val Val Gln Met Gln His Val Ala His Arg His Gly  
                   50                  55                  60  
 Glu Leu Gly Met Thr Ser His Arg Asp Ala Ala Thr Thr Ser Arg Ala  
   65                  70                  75                  80  
 Met Ser Thr Ser His Ile Leu Met Ser His Arg Arg Gly Asp Gly Ile  
                   85                  90                  95  
 Thr Gln Thr Val Met Met Ser His Thr Asp Thr Val Thr Thr His Thr  
                   100                  105                  110  
 Met Thr Thr Thr Pro Ile Asp Met Ala Pro Thr Ser His Ala Arg Met  
                   115                  120                  125  
 Pro Phe His Thr His Phe Leu Pro Asn Ser His Leu Val Ser Arg Ser  
                   130                  135                  140  
 Pro Asp Pro Gly Thr Arg Ala Lys Val Pro Thr Gly Ser His Pro Leu  
   145                  150                  155                  160

1007

Pro His Ser Pro Gly Pro Gln His Leu Pro Ser Ser Ser Phe Leu Ala  
                   165                  170                  175

Ser Gln Pro Leu Pro His Pro Gln Cys Leu Asp Pro Glu Val Arg Thr  
                   180                  185                  190

Gly Ser His Ser Pro Pro Leu Leu Glu Arg Glu Cys Phe Gln Asp Pro  
                   195                  200                  205

Leu Gly Ala Leu Ser Arg Gly  
           210                  215

&lt;210&gt; 1030

&lt;211&gt; 297

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1030

Lys Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg  
   1                  5                  10                  15

Val Arg Pro Arg Val Arg Pro Arg Val Arg Trp Thr Ala Ala Met Arg  
                   20                  25                  30

Leu Thr Val Leu Cys Ala Val Cys Leu Leu Pro Gly Ser Leu Ala Leu  
           35                  40                  45

Pro Leu Pro Gln Glu Ala Gly Gly Met Ser Glu Leu Gln Trp Glu Gln  
   50                  55                  60

Ala Gln Asp Tyr Leu Lys Arg Phe Tyr Leu Tyr Asp Ser Glu Thr Lys  
   65                  70                  75                  80

Asn Ala Asn Ser Leu Glu Ala Lys Leu Lys Glu Met Gln Lys Phe Phe  
                   85                  90                  95

Gly Leu Pro Ile Thr Gly Met Leu Asn Ser Arg Val Ile Glu Ile Met  
           100                  105                  110

Gln Lys Pro Arg Cys Gly Val Pro Asp Val Ala Glu Tyr Ser Leu Phe  
           115                  120                  125

Pro Asn Ser Pro Lys Trp Thr Ser Lys Val Val Thr Tyr Arg Ile Val  
   130                  135                  140

Ser Tyr Thr Arg Asp Leu Pro His Ile Thr Val Asp Arg Leu Val Ser  
   145                  150                  155                  160

Lys Ala Leu Asn Met Trp Gly Lys Glu Ile Pro Leu His Phe Arg Lys

1008

	165		170		175
Val Val Trp Gly Thr Ala Asp Ile Met Ile Gly Phe Ala Arg Gly Ala					
	180		185		190
His Gly Asp Ser Tyr Pro Phe Asp Gly Pro Gly Asn Thr Leu Ala His					
	195		200		205
Ala Phe Ala Pro Gly Thr Gly Leu Gly Gly Asp Ala His Phe Asp Glu					
	210		215		220
Asp Glu Arg Trp Thr Asp Gly Ser Ser Leu Gly Ile Asn Phe Leu Tyr					
	225		230		240
Ala Ala Thr His Glu Leu Gly His Ser Leu Gly Met Gly His Ser Ser					
	245		250		255
Asp Pro Asn Ala Val Met Tyr Pro Thr Tyr Gly Asn Gly Asp Pro Gln					
	260		265		270
Asn Phe Lys Leu Ser Gln Asp Asp Ile Lys Gly Ile Gln Lys Leu Tyr					
	275		280		285
Gly Lys Arg Ser Asn Ser Arg Lys Lys					
	290		295		

&lt;210&gt; 1031

&lt;211&gt; 571

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (484)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1031

Arg Val Arg Ser Lys Val Pro Arg Cys Val Asn Thr Gln Pro Gly Phe

1

5

10

15

1009

His Cys Leu Pro Cys Pro Pro Arg Tyr Arg Gly Asn Gln Pro Val Gly  
                   20                  25                  30

Val Gly Leu Glu Ala Ala Lys Thr Glu Lys Gln Xaa Cys Glu Pro Glu  
                   35                  40                  45

Asn Pro Cys Lys Asp Lys Thr His Asn Cys His Lys His Ala Glu Cys  
                   50                  55                  60

Ile Tyr Leu Gly His Phe Ser Asp Pro Met Tyr Lys Cys Glu Cys Gln  
                   65                  70                  75                  80

Xaa Gly Tyr Ala Gly Asp Gly Leu Ile Cys Gly Glu Asp Ser Asp Leu  
                   85                  90                  95

Asp Gly Trp Pro Asn Leu Asn Leu Val Cys Ala Thr Asn Ala Thr Tyr  
                   100                  105                  110

His Cys Ile Lys Asp Asn Cys Pro His Leu Pro Asn Ser Gly Gln Glu  
                   115                  120                  125

Asp Phe Asp Lys Asp Gly Ile Gly Asp Ala Cys Asp Asp Asp Asp Asp  
                   130                  135                  140

Asn Asp Gly Val Thr Asp Glu Lys Asp Asn Cys Gln Leu Leu Phe Asn  
                   145                  150                  155                  160

Pro Arg Gln Ala Asp Tyr Asp Lys Asp Glu Val Gly Asp Arg Cys Asp  
                   165                  170                  175

Asn Cys Pro Tyr Val His Asn Pro Ala Gln Ile Asp Thr Asp Asn Asn  
                   180                  185                  190

Gly Glu Gly Asp Ala Cys Ser Val Asp Ile Asp Gly Asp Asp Val Phe  
                   195                  200                  205

Asn Glu Arg Asp Asn Cys Pro Tyr Val Tyr Asn Thr Asp Gln Arg Asp  
                   210                  215                  220

Thr Asp Gly Asp Gly Val Gly Asp His Cys Asp Asn Cys Pro Leu Val  
                   225                  230                  235                  240

His Asn Pro Asp Gln Thr Asp Val Asp Asn Asp Leu Val Gly Asp Gln  
                   245                  250                  255

Cys Asp Asn Asn Glu Asp Ile Asp Asp Asp Gly His Gln Asn Asn Gln  
                   260                  265                  270

Asp Asn Cys Pro Tyr Ile Ser Asn Ala Asn Gln Ala Asp His Asp Arg  
                   275                  280                  285

1010

Asp Gly Gln Gly Asp Ala Cys Asp Pro Asp Asp Asp Asn Asp Gly Val			
290	295	300	
Pro Asp Asp Arg Asp Asn Cys Arg Leu Val Phe Asn Pro Asp Gln Glu			
305	310	315	320
Asp Leu Asp Gly Asp Gly Arg Gly Asp Ile Cys Lys Asp Asp Phe Asp			
	325	330	335
Asn Asp Asn Ile Pro Asp Ile Asp Asp Val Cys Pro Glu Asn Asn Ala			
	340	345	350
Ile Ser Glu Thr Asp Phe Arg Asn Phe Gln Met Val Pro Leu Asp Pro			
	355	360	365
Lys Gly Thr Thr Gln Ile Asp Pro Asn Trp Val Ile Arg His Gln Gly			
370	375	380	
Lys Glu Leu Val Gln Thr Ala Asn Ser Asp Pro Gly Ile Ala Val Gly			
385	390	395	400
Phe Asp Glu Phe Gly Ser Val Asp Phe Ser Gly Thr Phe Tyr Val Asn			
	405	410	415
Thr Asp Arg Asp Asp Asp Tyr Ala Gly Phe Val Phe Gly Tyr Gln Ser			
	420	425	430
Ser Ser Arg Phe Tyr Val Val Met Trp Lys Gln Val Thr Gln Thr Tyr			
435	440	445	
Trp Glu Asp Gln Pro Thr Arg Ala Tyr Gly Tyr Ser Gly Val Ser Leu			
450	455	460	
Lys Val Val Asn Ser Thr Thr Gly Thr Gly Glu His Leu Arg Asn Ala			
465	470	475	480
Leu Trp His Xaa Gly Asn Thr Pro Gly Gln Val Arg Thr Leu Trp His			
	485	490	495
Asp Pro Arg Asn Ile Gly Trp Lys Asp Tyr Thr Ala Tyr Arg Trp His			
	500	505	510
Leu Thr His Arg Pro Lys Thr Gly Tyr Ile Arg Val Leu Val His Glu			
	515	520	525
Gly Lys Gln Val Met Ala Asp Ser Gly Pro Ile Tyr Asp Gln Thr Tyr			
530	535	540	
Ala Gly Gly Arg Leu Gly Leu Phe Val Phe Ser Gln Glu Met Val Tyr			
545	550	555	560

1011

Phe Ser Asp Leu Lys Tyr Glu Cys Arg Asp Ile  
565 570

&lt;210&gt; 1032

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1032

Gly Arg Gly Thr Ala Thr Phe Pro Thr Gly His Glu Phe Val Gly Pro  
1 5 10 15

Cys Leu Gly Arg Ala Glu Ala Phe Trp Arg Ser Lys Met Gly Arg Lys  
20 25 30

Asp Ala Ala Thr Ile Lys Leu Pro Val Asp Gln Tyr Arg Lys Gln Ile  
35 40 45

Gly Lys Gln Asp Tyr Lys Lys Thr Lys Pro Ile Leu Arg Ala Thr Lys  
50 55 60

Leu Lys Ala Glu Ala Lys Lys Thr Ala Ile Gly Ile Lys Glu Val Gly  
65 70 75 80

Leu Val Leu Ala Ala Ile Leu Ala Leu Leu Leu Ala Phe Tyr Ala Phe  
85 90 95

Phe Tyr Leu Arg Leu Thr Thr Asp Val Asp Pro Asp Leu Asp Gln Asp  
100 105 110

Glu Asp

&lt;210&gt; 1033

&lt;211&gt; 243

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

1012

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1033

His Arg Arg Asp Glu Ala Leu Gln Ser Leu Arg Phe Arg Arg Arg Pro  
 1 5 10 15

Gly Ala Gln Ala Ala Asp Ala Cys Gly Pro Arg Ala Asp Leu Gly Gly  
 20 25 30

Pro Arg Glu Pro Ala Ala Gly Gly Arg Ala Ala Trp His Arg Pro Ala  
 35 40 45

Ala Arg Gly Gln Ser Pro Arg Arg Cys His Ala Gly Val His Arg Ser  
 50 55 60

Gln Cys His Leu Cys Arg Leu Gly Ala Ala Glu Arg Phe Arg Gly Ile  
 65 70 75 80

Val Ala Leu Leu Ala Ser Arg Xaa Leu Leu Arg Pro Pro Leu His Trp  
 85 90 95

Val Leu Leu Ala Xaa Ala Leu Val Asn Leu Leu Leu Ser Val Ala Cys  
 100 105 110

Ser Leu Gly Leu Leu Leu Ala Val Ser Leu Thr Val Ala Asn Gly Gly  
 115 120 125

Arg Arg Leu Ile Ala Asp Cys His Pro Gly Leu Leu Asp Pro Leu Val  
 130 135 140

Pro Leu Asp Glu Gly Pro Gly His Thr Asp Cys Pro Phe Asp Pro Thr  
 145 150 155 160

Arg Ile Tyr Asp Thr Ala Leu Ala Leu Trp Ile Pro Ser Leu Leu Met  
 165 170 175

Ser Ala Gly Glu Ala Ala Leu Ser Gly Tyr Cys Cys Val Ala Ala Leu  
 180 185 190

Thr Leu Arg Gly Val Gly Pro Cys Arg Lys Asp Gly Leu Gln Gly Gln  
 195 200 205

Leu Glu Glu Met Thr Glu Leu Glu Ser Pro Lys Cys Lys Arg Gln Glu  
 210 215 220

Asn Glu Gln Leu Leu Asp Gln Asn Gln Glu Ile Arg Ala Ser Gln Arg  
 225 230 235 240

Ser Trp Val



1013

&lt;210&gt; 1034

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1034

Tyr Thr Trp His Ser Glu Lys Met Asp Leu Lys Asp Lys Asn Gly Gly  
 1 5 10 15

Pro Gly Arg Cys Asn Ser His Arg Leu Lys Val Ser Ser Gly Leu Cys  
 20 25 30

Lys Thr His Glu Ile Gly Phe Asp Pro Leu Ala Leu Lys Cys Pro Leu  
 35 40 45

Arg Ser Arg Thr Ala Pro Trp Trp Pro Leu Asp Arg Val Ser Phe Asp  
 50 55 60

Leu His His Leu Val Ile Gly Asn Phe Phe Val Gly Asn Arg Lys Ile  
 65 70 75 80

Phe Leu Asp Tyr Leu Val Tyr Gly Phe Ala His Asn Asn Arg Trp Lys  
 85 90 95

Leu Leu Val Gln Ser Trp Ser Asp Gly Cys Val His Arg Thr Phe Gly  
 100 105 110

Leu Val Lys Ser Phe Ser Lys Ala Ser Phe Cys Ile Phe Ile Thr Lys  
 115 120 125

Gln Arg Lys Ser Ser Glu Asp Leu Ala Leu Lys Gln Ile Cys Ala Asn  
 130 135 140

Thr Ala Arg Val Ile Leu Lys Leu Lys His Phe His Phe Val Ser Tyr  
 145 150 155 160

Met Cys Thr Phe Leu Phe Thr Cys Glu Asn Gly His Leu  
 165 170

&lt;210&gt; 1035

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1035

Ser Phe Ser Glu Met Ala Gly Val Ser Ala Cys Ile Lys Tyr Ser Met  
 1 5 10 15

1014

Phe Thr Phe Asn Phe Leu Phe Trp Leu Cys Gly Ile Leu Ile Leu Ala  
                   20                                  25                                  30  
 Leu Ala Ile Trp Val Arg Val Ser Asn Asp Ser Gln Ala Ile Phe Gly  
                   35                                  40                                  45  
 Ser Glu Asp Val Gly Ser Ser Ser Tyr Val Ala Val Asp Ile Leu Ile  
                   50                                  55                                  60  
 Ala Val Gly Ala Ile Ile Met Ile Leu Gly Phe Leu Gly Cys Cys Gly  
                   65                                  70                                  75                                  80  
 Ala Ile Lys Glu Ser Arg Cys Met Leu Leu Leu Phe Phe Ile Gly Leu  
                                   85                                  90                                  95  
 Leu Leu Ile Leu Leu Leu Gln Val Ala Thr Gly Ile Leu Gly Ala Val  
                   100                                  105                                  110  
 Phe Lys Ser Lys Ser Asp Arg Ile Val Asn Glu Thr Leu Tyr Glu Asn  
                   115                                  120                                  125  
 Thr Lys Leu Leu Ser Ala Thr Gly Glu Ser Glu Lys Gln Phe Gln Glu  
                   130                                  135                                  140  
 Ala Ile Ile Val Phe Gln Glu Glu Phe Lys Cys Cys Gly Leu Val Asn  
                   145                                  150                                  155                                  160  
 Gly Ala Ala Asp Trp Gly Asn Asn Phe Gln His Tyr Pro Glu Leu Cys  
                                   165                                  170                                  175  
 Ala Cys Leu Asp Lys Gln Arg Pro Cys Gln Ser Tyr Asn Gly Lys Gln  
                   180                                  185                                  190  
 Val Tyr Lys Glu Thr Cys Ile Ser Phe Ile Lys Asp Phe Leu Ala Lys  
                   195                                  200                                  205  
 Asn Leu Ile Ile Val Ile Gly Ile Ser Phe Gly Leu Ala Val Ile Glu  
                   210                                  215                                  220  
 Ile Leu Gly Leu Val Phe Ser Met Val Leu Tyr Cys Gln Ile Gly Asn  
                   225                                  230                                  235                                  240

Lys

&lt;210&gt; 1036

&lt;211&gt; 335

&lt;212&gt; PRT

1015

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1036

Pro Thr Xaa Gly Arg Ala Glu Glu Ala Lys Met Ala Ala Ala Ala Ala  
 1 5 10 15

Ser Leu Arg Gly Val Val Leu Gly Pro Arg Gly Ala Gly Leu Pro Gly  
 20 25 30

Ala Arg Ala Arg Gly Leu Leu Cys Ser Ala Arg Pro Gly Gln Leu Pro  
 35 40 45

Leu Arg Thr Pro Gln Ala Val Ala Leu Ser Ser Lys Ser Gly Leu Ser  
 50 55 60

Arg Gly Arg Lys Val Met Leu Ser Ala Leu Gly Met Leu Ala Ala Gly  
 65 70 75 80

Gly Ala Gly Leu Ala Val Ala Leu His Ser Ala Val Ser Ala Ser Asp  
 85 90 95

Leu Glu Leu His Pro Pro Ser Tyr Pro Trp Ser His Arg Gly Leu Leu  
 100 105 110

Ser Ser Leu Asp His Thr Ser Ile Arg Arg Gly Phe Gln Val Tyr Lys  
 115 120 125

Gln Val Cys Ala Ser Cys His Ser Met Asp Phe Val Ala Tyr Arg His  
 130 135 140

Leu Val Gly Val Cys Tyr Thr Glu Asp Glu Ala Lys Glu Leu Ala Ala  
 145 150 155 160

Glu Val Glu Val Gln Asp Gly Pro Asn Glu Asp Gly Glu Met Phe Met  
 165 170 175

Arg Pro Gly Lys Leu Phe Asp Tyr Phe Pro Lys Pro Tyr Pro Asn Ser  
 180 185 190

Glu Ala Ala Arg Ala Ala Asn Asn Gly Ala Leu Pro Pro Asp Leu Ser  
 195 200 205

Tyr Ile Val Arg Ala Arg His Gly Gly Glu Asp Tyr Val Phe Ser Leu  
 210 215 220

Leu Thr Gly Tyr Cys Glu Pro Pro Thr Gly Val Ser Leu Arg Glu Gly

1016

225                      230                      235                      240  
 Leu Tyr Phe Asn Pro Tyr Phe Pro Gly Gln Ala Ile Ala Met Ala Pro  
                                  245                      250                      255  
 Pro Ile Tyr Thr Asp Val Leu Glu Phe Asp Asp Gly Thr Pro Ala Thr  
                                  260                      265                      270  
 Met Ser Gln Ile Ala Lys Asp Val Cys Thr Phe Leu Arg Trp Ala Ser  
                                  275                      280                      285  
 Glu Pro Glu His Asp His Arg Lys Arg Met Gly Leu Lys Met Leu Met  
                                  290                      295                      300  
 Met Met Ala Leu Leu Val Pro Leu Val Tyr Thr Ile Lys Arg His Lys  
 305                                   310                      315                      320  
 Trp Ser Val Leu Lys Ser Arg Lys Leu Ala Tyr Arg Pro Pro Lys  
                                  325                      330                      335

&lt;210&gt; 1037

&lt;211&gt; 511

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1037

His Gln Leu Gln Gly Pro Leu Pro Leu Arg Ala Leu Pro Trp His Ser  
   1                                    5                                    10                                    15  
 Ser Arg Ser Arg Val Thr Cys Thr Arg Cys Phe Ser Trp Met His Pro  
                                  20                                    25                                    30  
 Ser Pro Met His Pro Leu Arg Ala Gly Ser Lys Ser Gln Gly Ser Arg  
                                  35                                    40                                    45  
 Ser Pro Ala Pro Ser Pro Met Arg Ala Ala Asn Arg Ser His Ser Ala  
                                  50                                    55                                    60  
 Gly Arg Thr Pro Gly Arg Thr Pro Gly Lys Ser Ser Ser Lys Val Gln  
 65                                    70                                    75                                    80  
 Thr Thr Pro Ser Lys Pro Gly Gly Asp Arg Tyr Ile Pro His Arg Ser  
                                  85                                    90                                    95  
 Ala Ala Gln Met Glu Val Ala Ser Phe Leu Leu Ser Lys Glu Asn Gln  
                                  100                                    105                                    110  
 Pro Glu Asn Ser Gln Thr Pro Thr Lys Lys Glu His Gln Lys Ala Trp  
                                  115                                    120                                    125

1017

Ala Leu Asn Leu Asn Gly Phe Asp Val Glu Glu Ala Lys Ile Leu Arg  
 130 135 140

Leu Ser Gly Lys Pro Gln Asn Ala Pro Glu Gly Tyr Gln Asn Arg Leu  
 145 150 155 160

Lys Val Leu Tyr Ser Gln Lys Ala Thr Pro Gly Ser Ser Arg Lys Thr  
 165 170 175

Cys Arg Tyr Ile Pro Ser Leu Pro Asp Arg Ile Leu Asp Ala Pro Glu  
 180 185 190

Ile Arg Asn Asp Tyr Tyr Leu Asn Leu Val Asp Trp Ser Ser Gly Asn  
 195 200 205

Val Leu Ala Val Ala Leu Asp Asn Ser Val Tyr Leu Trp Ser Ala Ser  
 210 215 220

Ser Gly Asp Ile Leu Gln Leu Leu Gln Met Glu Gln Pro Gly Glu Tyr  
 225 230 235 240

Ile Ser Ser Val Ala Trp Ile Lys Glu Gly Asn Tyr Leu Ala Val Gly  
 245 250 255

Thr Ser Ser Ala Glu Val Gln Leu Trp Asp Val Gln Gln Gln Lys Arg  
 260 265 270

Leu Arg Asn Met Thr Ser His Ser Ala Arg Val Gly Ser Leu Ser Trp  
 275 280 285

Asn Ser Tyr Ile Leu Ser Ser Gly Ser Arg Ser Gly His Ile His His  
 290 295 300

His Asp Val Arg Val Ala Glu His His Val Ala Thr Leu Ser Gly His  
 305 310 315 320

Ser Gln Glu Val Cys Gly Leu Arg Trp Ala Pro Asp Gly Arg His Leu  
 325 330 335

Ala Ser Gly Gly Asn Asp Asn Leu Val Asn Val Trp Pro Ser Ala Pro  
 340 345 350

Gly Glu Gly Gly Trp Val Pro Leu Gln Thr Phe Thr Gln His Gln Gly  
 355 360 365

Ala Val Lys Ala Val Ala Trp Cys Pro Trp Gln Ser Asn Val Leu Ala  
 370 375 380

Thr Gly Gly Gly Thr Ser Asp Arg His Ile Arg Ile Trp Asn Val Cys  
 385 390 395 400

1018

Ser Gly Ala Cys Leu Ser Ala Val Asp Ala His Ser Gln Val Cys Ser  
 405 410 415  
 Ile Leu Trp Ser Pro His Tyr Lys Glu Leu Ile Ser Gly His Gly Phe  
 420 425 430  
 Ala Gln Asn Gln Leu Val Ile Trp Lys Tyr Pro Thr Met Ala Lys Val  
 435 440 445  
 Ala Glu Leu Lys Gly His Thr Ser Arg Val Leu Ser Leu Thr Met Ser  
 450 455 460  
 Pro Asp Gly Ala Thr Val Ala Ser Ala Ala Asp Glu Thr Leu Arg  
 465 470 475 480  
 Leu Trp Arg Cys Phe Glu Leu Asp Pro Ala Arg Arg Arg Glu Arg Glu  
 485 490 495  
 Lys Ala Ser Ala Ala Lys Ser Ser Leu Ile His Gln Gly Ile Arg  
 500 505 510

&lt;210&gt; 1038

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1038

His Glu Pro Pro Ser Ala Ser Ser Val Ala Gly Asp Leu Gly Arg Gly  
 1 5 10 15  
 Thr Arg Thr Glu Val Glu Ala Arg Ala Ala Arg Pro Gly Ala Glu Ser  
 20 25 30  
 Ala Pro Ala Ala Ala Met Pro Asp Ser Trp Asp Lys Asp Val Tyr Pro  
 35 40 45  
 Glu Pro Pro Arg Arg Thr Pro Val Gln Pro Asn Pro Ile Val Tyr Met  
 50 55 60  
 Met Lys Ala Phe Asp Leu Ile Val Asp Arg Pro Val Thr Leu Val Arg  
 65 70 75 80  
 Glu Phe Ile Glu Arg Gln His Ala Lys Asn Arg Tyr Tyr Tyr Tyr His  
 85 90 95  
 Arg Gln Tyr Arg Arg Val Pro Asp Ile Thr Glu Cys Lys Glu Glu Asp  
 100 105 110

1019

```

Ile Met Cys Met Tyr Glu Ala Glu Met Gln Trp Lys Arg Asp Tyr Lys
    115                      120                      125

Val Asp Gln Glu Ile Ile Asn Ile Met Gln Asp Arg Leu Lys Ala Cys
    130                      135                      140

Gln Gln Arg Glu Gly Gln Asn Tyr Gln Gln Asn Cys Ile Lys Glu Val
    145                      150                      155                      160

Glu Gln Phe Thr Gln Val Ala Lys Ala Tyr Gln Asp Arg Tyr Gln Asp
    165                      170                      175

Leu Gly Ala Tyr Ser Ser Ala Arg Lys Cys Leu Ala Lys Gln Arg Gln
    180                      185                      190

Arg Met Leu Gln Glu Arg Lys Ala Ala Lys Glu Ala Ala Ala Ala Thr
    195                      200                      205

Ser

```

&lt;210&gt; 1039

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (153)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1039

```

Leu Ala Ala Pro Asp Leu Ser Lys Pro Arg Gly Tyr His Trp Asp Thr
  1              5              10              15

Ser Asp Trp Met Pro Ser Val Pro Leu Pro Asp Ile Gln Glu Phe Pro
    20              25              30

Asn Tyr Glu Val Ile Asp Glu Gln Thr Pro Leu Tyr Ser Ala Asp Pro
    35              40              45

Asn Ala Ile Asp Thr Asp Tyr Tyr Pro Gly Gly Tyr Asp Ile Glu Ser
    50              55              60

Asp Phe Pro Pro Pro Pro Glu Asp Phe Pro Ala Ala Asp Glu Leu Pro
    65              70              75              80

Pro Leu Pro Pro Glu Phe Ser Asn Gln Phe Glu Ser Ile His Pro Pro
    85              90              95

```

1020

Arg Asp Met Pro Ala Ala Gly Ser Leu Gly Ser Ser Ser Arg Asn Arg  
                   100                  105                  110  
 Gln Arg Phe Asn Leu Asn Gln Tyr Leu Pro Asn Phe Tyr Pro Leu Asp  
                   115                  120                  125  
 Met Ser Glu Pro Gln Thr Lys Gly Thr Gly Glu Asn Ser Thr Cys Arg  
                   130                  135                  140  
 Glu Pro His Ala Pro Tyr Pro Pro Xaa Tyr Gln Arg His Phe Glu Ala  
                   145                  150                  155                  160  
 Pro Ala Val Glu Ser Met Pro Met Ser Val Tyr Ala Ser Thr Ala Ser  
                   165                  170                  175  
 Cys Ser Asp Val Ser Ala Cys Cys Glu Val Glu Ser Glu Val Met Met  
                   180                  185                  190  
 Ser Asp Tyr Glu Ser Gly Asp Asp Gly His Phe Glu Glu Val Thr Ile  
                   195                  200                  205  
 Pro Pro Leu Asp Ser Gln Gln His Thr Glu Val  
                   210                  215

&lt;210&gt; 1040

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1040

Phe Asp Leu Pro Tyr Arg Ala Glu Phe Gly Xaa Pro Gly Pro Pro Leu  
   1                  5                  10                  15  
 Ser Ala Ala Cys Ser Trp Lys Phe Arg Leu Gly Cys Leu Leu Gly Ala  
                   20                  25                  30  
 Met Glu Ser Asp Phe Tyr Leu Arg Tyr Tyr Val Gly His Lys Gly Lys  
                   35                  40                  45  
 Phe Gly His Glu Phe Leu Glu Phe Glu Phe Arg Pro Asp Gly Lys Leu  
                   50                  55                  60  
 Arg Tyr Ala Asn Asn Ser Asn Tyr Lys Asn Asp Val Met Ile Arg Lys



1021

```

65              70              75              80
Glu Ala Tyr Val His Lys Ser Val Met Glu Glu Leu Lys Arg Ile Ile
      85              90              95
Asp Asp Ser Glu Ile Thr Lys Glu Asp Asp Ala Leu Trp Pro Pro Pro
      100             105             110
Asp Arg Val Gly Arg Gln Glu Leu Glu Ile Val Ile Gly Asp Glu His
      115             120             125
Ile Ser Phe Thr Thr Ser Lys Ile Gly Ser Leu Ile Asp Val Asn Gln
      130             135             140
Ser Lys Asp Pro Glu Gly Leu Arg Val Phe Tyr Tyr Leu Val Gln Asp
      145             150             155             160
Leu Lys Cys Leu Val Phe Ser Leu Ile Gly Leu His Phe Lys Ile Lys
      165             170             175

Pro Ile

```

```

<210> 1041
<211> 121
<212> PRT
<213> Homo sapiens

```

```

<400> 1041
Leu Val Pro Asn Ser Ala Arg Ala Gly Ala Ser Tyr Ala Ala Ala Ala
  1              5              10             15
Val Thr Met Ala His Tyr Lys Ala Ala Asp Ser Lys Arg Glu Gln Phe
      20             25             30
Arg Arg Tyr Leu Glu Lys Ser Gly Val Leu Asp Thr Leu Thr Lys Val
      35             40             45
Leu Val Ala Leu Tyr Glu Glu Pro Glu Lys Pro Asn Ser Ala Leu Asp
      50             55             60
Phe Leu Lys His His Leu Gly Ala Ala Thr Pro Glu Asn Pro Glu Ile
      65             70             75             80
Glu Leu Leu Arg Leu Glu Leu Ala Glu Met Lys Glu Lys Tyr Glu Ala
      85             90             95
Ile Val Glu Glu Asn Lys Lys Leu Lys Ala Lys Leu Ala Gln Tyr Glu
      100            105            110

```

1022

Pro Pro Gln Glu Glu Lys Arg Ala Glu  
 115 120

&lt;210&gt; 1042

&lt;211&gt; 253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1042

Val Asp Pro Arg Val Arg Pro Arg Ser Val Asn Gly Glu Leu Gln Lys  
 1 5 10 15

Ala Ile Asp Leu Phe Thr Asp Ala Ile Lys Leu Asn Pro Arg Leu Ala  
 20 25 30

Ile Leu Tyr Ala Lys Arg Ala Ser Val Phe Val Lys Leu Gln Lys Pro  
 35 40 45

Asn Ala Ala Ile Arg Asp Cys Asp Arg Ala Ile Glu Ile Asn Pro Asp  
 50 55 60

Ser Ala Gln Pro Tyr Lys Trp Arg Gly Lys Ala His Arg Leu Leu Gly  
 65 70 75 80

His Trp Glu Glu Ala Ala His Asp Leu Ala Leu Ala Cys Lys Leu Asp  
 85 90 95

Tyr Asp Glu Asp Ala Ser Ala Met Leu Lys Glu Val Gln Pro Arg Ala  
 100 105 110

Gln Lys Ile Ala Glu His Arg Arg Lys Tyr Glu Arg Lys Arg Glu Glu  
 115 120 125

Arg Glu Ile Lys Glu Arg Ile Glu Arg Val Lys Lys Ala Arg Glu Glu  
 130 135 140

His Glu Arg Ala Gln Arg Glu Glu Glu Ala Arg Arg Gln Ser Gly Ala  
 145 150 155 160

Gln Tyr Gly Ser Phe Pro Gly Gly Phe Pro Gly Gly Met Pro Gly Asn  
 165 170 175

Phe Pro Gly Gly Met Pro Gly Met Gly Gly Gly Met Pro Gly Met Ala  
 180 185 190

Gly Met Pro Gly Leu Asn Glu Ile Leu Ser Asp Pro Glu Val Leu Ala  
 195 200 205

1023

Ala Met Gln Asp Pro Glu Val Met Val Ala Phe Gln Asp Val Ala Gln  
 210 215 220

Asn Pro Ala Asn Met Ser Lys Tyr Gln Ser Asn Pro Lys Val Met Asn  
 225 230 235 240

Leu Ile Ser Lys Leu Ser Ala Lys Phe Gly Gly Gln Ala  
 245 250

&lt;210&gt; 1043

&lt;211&gt; 343

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1043

Met Lys Thr Cys Gln Glu Glu Lys Leu Met Gly His Leu Gly Val Val  
 1 5 10 15

Leu Tyr Glu Tyr Leu Gly Glu Glu Tyr Pro Glu Val Leu Gly Ser Ile  
 20 25 30

Leu Gly Ala Leu Lys Ala Ile Val Asn Val Ile Gly Met His Lys Met  
 35 40 45

Thr Pro Pro Ile Lys Asp Leu Leu Pro Arg Leu Thr Pro Ile Leu Lys  
 50 55 60

Asn Arg His Glu Lys Val Gln Glu Asn Cys Ile Asp Leu Val Gly Arg  
 65 70 75 80

Ile Ala Asp Arg Gly Ala Glu Tyr Val Ser Ala Arg Glu Trp Met Arg  
 85 90 95

Ile Cys Phe Glu Leu Leu Glu Leu Leu Lys Ala His Lys Lys Ala Ile  
 100 105 110

Arg Arg Ala Thr Val Asn Thr Phe Gly Tyr Ile Ala Lys Ala Ile Gly  
 115 120 125

Pro His Asp Val Leu Ala Thr Leu Leu Asn Asn Leu Lys Val Gln Glu  
 130 135 140

Arg Gln Asn Arg Val Cys Thr Thr Val Ala Ile Ala Ile Val Ala Glu  
 145 150 155 160

Thr Cys Ser Pro Phe Thr Val Leu Pro Ala Leu Met Asn Glu Tyr Arg  
 165 170 175

Val Pro Glu Leu Asn Val Gln Asn Gly Val Leu Lys Ser Leu Ser Phe

1024

180								185					190				
Leu	Phe	Glu	Tyr	Ile	Gly	Glu	Met	Gly	Lys	Asp	Tyr	Ile	Tyr	Ala	Val		
		195					200						205				
Thr	Pro	Leu	Leu	Glu	Asp	Ala	Leu	Met	Asp	Arg	Asp	Leu	Val	His	Arg		
	210					215					220						
Gln	Thr	Ala	Ser	Ala	Val	Val	Gln	His	Met	Ser	Leu	Gly	Val	Tyr	Gly		
225					230					235					240		
Phe	Gly	Cys	Glu	Asp	Ser	Leu	Asn	His	Leu	Leu	Asn	Tyr	Val	Trp	Pro		
				245					250					255			
Asn	Val	Phe	Glu	Thr	Ser	Pro	His	Val	Ile	Gln	Ala	Val	Met	Gly	Ala		
			260					265					270				
Leu	Glu	Gly	Leu	Arg	Val	Ala	Ile	Gly	Pro	Cys	Arg	Met	Leu	Gln	Tyr		
		275					280					285					
Cys	Leu	Gln	Gly	Leu	Phe	His	Pro	Ala	Arg	Lys	Val	Arg	Asp	Val	Tyr		
	290					295					300						
Trp	Lys	Ile	Tyr	Asn	Ser	Ile	Tyr	Ile	Gly	Ser	Gln	Asp	Ala	Leu	Ile		
305					310					315					320		
Ala	His	Tyr	Pro	Arg	Ile	Tyr	Asn	Asp	Asp	Lys	Asn	Thr	Tyr	Ile	Arg		
				325					330					335			
Tyr	Glu	Leu	Asp	Tyr	Ile	Leu											
			340														

<210> 1044

<211> 268

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1044

Leu Arg Arg Pro Tyr Ala Arg Tyr Asn Gly Leu Tyr Arg Ser Gly Ile  
1 5 10 15

Arg Gly Arg Xaa Asn Leu Glu Ser Thr Arg Val Arg Glu Leu Pro Gly  
20 25 30

1025

Gly Ala Met Ser Cys Ile Asn Leu Pro Thr Val Leu Pro Gly Ser Pro  
           35                          40                          45  
 Ser Lys Thr Arg Gly Gln Ile Gln Val Ile Leu Gly Pro Met Phe Ser  
           50                          55                          60  
 Gly Lys Ser Thr Glu Leu Met Arg Arg Val Arg Arg Phe Gln Ile Ala  
           65                          70                          75                          80  
 Gln Tyr Lys Cys Leu Val Ile Lys Tyr Ala Lys Asp Thr Arg Tyr Ser  
                           85                          90                          95  
 Ser Ser Phe Cys Thr His Asp Arg Asn Thr Met Glu Ala Leu Pro Ala  
                           100                          105                          110  
 Cys Leu Leu Arg Asp Val Ala Gln Glu Ala Leu Gly Val Ala Val Ile  
           115                          120                          125  
 Gly Ile Asp Glu Gly Gln Phe Phe Pro Asp Ile Val Glu Phe Cys Glu  
           130                          135                          140  
 Ala Met Ala Asn Ala Gly Lys Thr Val Ile Val Ala Ala Leu Asp Gly  
           145                          150                          155                          160  
 Thr Phe Gln Arg Lys Pro Phe Gly Ala Ile Leu Asn Leu Val Pro Leu  
                           165                          170                          175  
 Ala Glu Ser Val Val Lys Leu Thr Ala Val Cys Met Glu Cys Phe Arg  
                           180                          185                          190  
 Glu Ala Ala Tyr Thr Lys Arg Leu Gly Thr Glu Lys Glu Val Glu Val  
           195                          200                          205  
 Ile Gly Gly Ala Asp Lys Tyr His Ser Val Cys Arg Leu Cys Tyr Phe  
           210                          215                          220  
 Lys Lys Ala Ser Gly Gln Pro Ala Gly Pro Asp Asn Lys Glu Asn Cys  
           225                          230                          235                          240  
 Pro Val Pro Gly Lys Pro Gly Glu Ala Val Ala Ala Arg Lys Leu Phe  
                           245                          250                          255  
 Ala Pro Gln Gln Ile Leu Gln Cys Ser Pro Ala Asn  
           260                          265

&lt;210&gt; 1045

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1026

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1045

Pro Gly Gln Ser Arg Trp Gln Gly Pro Pro Leu Pro Leu Cys Gln Ala  
 1 5 10 15

Gly Ser Ala Lys Ser Gly Glu Pro Gly Ala Gly Gly Lys Ala Gly Asp  
 20 25 30

Ser Pro Ala Leu Pro Pro Pro Pro Leu Gly Ala Gln Gln Leu Leu Arg  
 35 40 45

Lys Val Trp His Pro Trp Arg Gly Gly Ala Pro Gly Trp Ala Gly Ser  
 50 55 60

Arg Trp Pro Gly Ala Trp Arg Cys Ala Ala Gly Ala Cys Met Ala Pro  
 65 70 75 80

Arg Gly Thr Gln Ala Glu Glu Ser Pro Phe Val Gly Asn Pro Gly Asn  
 85 90 95

Ile Thr Gly Ala Arg Gly Leu Thr Gly Thr Leu Arg Cys Gln Leu Gln  
 100 105 110

Val Gln Gly Glu Pro Pro Glu Val His Trp Leu Arg Asp Gly Gln Xaa  
 115 120 125

Leu Glu Leu Ala Asp Ser Thr Gln Thr Gln Val  
 130 135

&lt;210&gt; 1046

&lt;211&gt; 416

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1046

Ser Pro Ser Glu Arg Leu Gln Arg Gly Arg Glu Glu Gln Pro Ala Gly  
 1 5 10 15

Gly Gly Gly Glu Ser Val Ser Ser Trp Glu Glu Gln Asn Arg Gly Gly  
 20 25 30

Ala Pro Ala Gly Ala Gly Gly Gly Pro Thr Met Ala Ile Arg Lys Lys  
 35 40 45

1027

Ser Thr Lys Ser Pro Pro Val Leu Ser His Glu Phe Val Leu Gln Asn  
 50 55 60  
 His Ala Asp Ile Val Ser Cys Val Ala Met Val Phe Leu Leu Gly Leu  
 65 70 75 80  
 Met Phe Glu Ile Thr Ala Lys Ala Ser Ile Ile Phe Val Thr Leu Gln  
 85 90 95  
 Tyr Asn Val Thr Leu Pro Ala Thr Glu Glu Gln Ala Thr Glu Ser Val  
 100 105 110  
 Ser Leu Tyr Tyr Tyr Gly Ile Lys Asp Leu Ala Thr Val Phe Phe Tyr  
 115 120 125  
 Met Leu Val Ala Ile Ile Ile His Ala Val Ile Gln Glu Tyr Met Leu  
 130 135 140  
 Asp Lys Ile Asn Arg Arg Met His Phe Ser Lys Thr Lys His Ser Lys  
 145 150 155 160  
 Phe Asn Glu Ser Gly Gln Leu Ser Ala Phe Tyr Leu Phe Ala Cys Val  
 165 170 175  
 Trp Gly Thr Phe Ile Leu Ile Ser Glu Asn Tyr Ile Ser Asp Pro Thr  
 180 185 190  
 Ile Leu Trp Arg Ala Tyr Pro His Asn Leu Met Thr Phe Gln Met Lys  
 195 200 205  
 Phe Phe Tyr Ile Ser Gln Leu Ala Tyr Trp Leu His Ala Phe Pro Glu  
 210 215 220  
 Leu Tyr Phe Gln Lys Thr Lys Lys Glu Asp Ile Pro Arg Gln Leu Val  
 225 230 235 240  
 Tyr Ile Gly Leu Tyr Leu Phe His Ile Ala Gly Ala Tyr Leu Leu Asn  
 245 250 255  
 Leu Asn His Leu Gly Leu Val Leu Leu Val Leu His Tyr Phe Val Glu  
 260 265 270  
 Phe Leu Phe His Ile Ser Arg Leu Phe Tyr Phe Ser Asn Glu Lys Tyr  
 275 280 285  
 Gln Lys Gly Phe Ser Leu Trp Ala Val Leu Phe Val Leu Gly Arg Leu  
 290 295 300  
 Leu Thr Leu Ile Leu Ser Val Leu Thr Val Gly Phe Gly Leu Ala Arg  
 305 310 315 320

1028

Ala Glu Asn Gln Lys Leu Asp Phe Ser Thr Gly Asn Phe Asn Val Leu  
                           325                          330                          335

Ala Val Arg Ile Ala Val Leu Ala Ser Ile Cys Val Thr Gln Ala Phe  
                           340                          345                          350

Met Met Trp Lys Phe Ile Asn Phe Gln Leu Arg Arg Trp Arg Glu His  
                           355                          360                          365

Ser Ala Phe Gln Ala Pro Ala Val Lys Lys Lys Pro Thr Val Thr Lys  
                           370                          375                          380

Gly Arg Ser Ser Lys Lys Gly Thr Glu Asn Gly Val Asn Gly Thr Leu  
 385                          390                          395                          400

Thr Ser Asn Val Ala Asp Ser Pro Arg Asn Lys Lys Glu Lys Ser Ser  
                           405                          410                          415

&lt;210&gt; 1047

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1047

Pro Ala Ser Ser Gly Leu Leu Pro Leu Ser Arg Ser Asn Leu Tyr Ser  
   1                          5                          10                          15

Gly Arg Thr Gly Ile Pro Arg Ala Pro Pro Ala Leu Ala Ala Leu Ala  
                           20                          25                          30

Thr Ala Pro Gly Arg Arg Ala Pro Val His Thr Gly Ser Leu Leu Gly  
                           35                          40                          45

Thr Asn Ser Ser Thr Met Gly Leu Ala Trp Gly Leu Gly Val Leu Phe  
                           50                          55                          60

Leu Met His Val Cys Gly Thr Asn Arg Ile Pro Glu Ser Gly Gly Asp  
   65                          70                          75                          80

Asn Ser Val Phe Asp Ile Phe Glu Leu Thr Gly Ala Ala Arg Lys Gly  
                           85                          90                          95

Ser Gly Arg Arg Leu Val Lys Gly Pro Asp Pro Ser Ser Pro Ala Phe  
                           100                          105                          110

Arg Ile Glu Asp Ala Asn Leu Ile Pro Pro Val Pro Asp Asp Lys Phe



1029

115	120	125
Gln Asp Leu Val Asp Ala Val Arg Ala Glu Lys Gly Phe Leu Leu Leu		
130	135	140
Ala Ser Leu Arg Gln Met Lys Lys Thr Arg Gly Thr Leu Leu Ala Leu		
145	150	155 160
Glu Arg Lys Asp His Ser Gly Gln Val Phe Ser Val Val Ser Asn Gly		
	165	170 175
Lys Ala Gly Thr Leu Asp Leu Ser Leu Thr Val Gln Gly Lys Gln His		
	180	185 190
Val Val Ser Val Glu Glu Ala Leu Leu Ala Thr Gly Gln Trp Lys Ser		
	195	200 205
Ile Thr Leu Phe Val Gln Glu Asp Arg Ala Gln Leu Tyr Ile Asp Cys		
	210	215 220
Glu Lys Met Glu Asn Ala Glu Leu Asp Val Pro Ile Gln Ser Val Phe		
	225	230 235 240
Thr Arg Asp Leu Ala Ser Ile Ala Arg Leu Arg Ile Ala Lys Gly Gly		
	245	250 255
Val Asn Asp Asn Phe Gln Gly Val Leu Gln Asn Val Arg Phe Val Phe		
	260	265 270
Gly Thr Thr Pro Glu Asp Ile Leu Arg Asn Lys Gly Cys Ser Ser Ser		
	275	280 285
Thr Ser Val Leu Leu Thr Leu Asp Asn Asn Val Val Asn Gly Ser Ser		
	290	295 300
Pro Ala Ile Arg Thr Asn Tyr Ile Gly His Lys Thr Lys Asp Leu Gln		
	305	310 315 320
Ala Ile Cys Gly Ile Ser Cys Asp Glu Leu Ser Ser Met Val Leu Glu		
	325	330 335
Leu Arg Gly Leu Arg Thr Ile Val Thr Thr Leu Gln Asp Ser Ile Arg		
	340	345 350
Lys Val Thr Glu Glu Asn Lys Glu Leu Ala Asn Glu Leu Arg Arg Pro		
	355	360 365
Pro Leu Cys Tyr His Asn Gly Val Gln Tyr Arg Asn Asn Glu Glu Trp		
	370	375 380
Thr Val Asp Ser Cys Thr Glu Cys His Cys Gln Asn Ser Val Thr Ile		

1030

385                      390                      395                      400  
 Cys Lys Lys Val Ser Cys Pro Ile Met Pro Cys Ser Asn Ala Thr Val  
                                  405                      410                      415  
 Pro Asp Gly Glu Cys Cys Pro Arg Cys Trp Pro Ser Asp Ser Ala Asp  
                                  420                      425                      430  
 Asp Gly Trp Ser Pro Trp Ser Glu Trp Thr Ser Cys Ser Thr Ser Cys  
                                  435                      440                      445  
 Gly Asn Gly Ile Gln Gln Arg Gly Arg Ser Cys Asp Ser Ala Gln Gln  
                                  450                      455                      460  
 Pro Met  
 465

<210> 1048  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (122)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (186)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (200)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1048  
 Asp Pro Arg Val Arg Gln Ser His Ile Ser Asp Thr Ser Val Val Val  
   1                                  5                                  10                                  15  
 Lys Leu Asp Asn Ser Arg Asp Leu Asn Met Asp Cys Ile Ile Ala Glu  
                                   20                                  25                                  30  
 Ile Lys Ala Gln Tyr Asp Asp Ile Val Thr Arg Ser Arg Ala Glu Ala  
                                   35                                  40                                  45  
 Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu Met Lys Ala Thr Val Ile  
                                   50                                  55                                  60

1031

Arg His Gly Glu Thr Leu Arg Arg Thr Lys Glu Glu Ile Asn Glu Leu  
65 70 75 80

Asn Arg Met Ile Gln Arg Leu Thr Ala Glu Val Glu Asn Ala Lys Cys  
85 90 95

Gln Asn Ser Lys Leu Glu Ala Ala Val Ala Gln Ser Glu Gln Gln Gly  
100 105 110

Glu Ala Ala Leu Ser Asp Ala Arg Cys Xaa Leu Ala Glu Leu Glu Gly  
115 120 125

Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys Leu Ile Arg Glu Tyr  
130 135 140

Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp Ile Glu Ile Ala Thr  
145 150 155 160

Tyr Arg Arg Leu Leu Glu Gly Glu Glu Gln Arg Leu Cys Glu Gly Ile  
165 170 175

Gly Ala Val Asn Val Cys Val Ser Ser Xaa Arg Gly Gly Val Val Cys  
180 185 190

Gly Asp Leu Cys Val Ser Gly Xaa Arg Pro Val Thr Ala Val Ser Ala  
195 200 205

Ala Leu Arg Ala Thr Gly Thr Trp Arg  
210 215

&lt;210&gt; 1049

&lt;211&gt; 406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1049

Gly Ser Ala Ala Ala Arg Tyr Leu Ser Ala Thr Trp Arg Asn Trp Ile  
1 5 10 15

Ser Leu Pro Pro Ala Gly Leu Pro Ala Thr Ala Gly Leu Arg His Ser  
20 25 30

Gly Ser Leu Met Ala Ala Thr Cys Glu Ile Ser Asn Ile Phe Ser Asn  
35 40 45

Tyr Phe Ser Ala Met Tyr Ser Ser Glu Asp Ser Thr Leu Ala Ser Val  
50 55 60

1032

Pro Pro Ala Ala Thr Phe Gly Ala Asp Asp Leu Val Leu Thr Leu Ser  
 65 70 75 80  
 Asn Pro Gln Met Ser Leu Glu Gly Thr Glu Lys Ala Ser Trp Leu Gly  
 85 90 95  
 Glu Gln Pro Gln Phe Trp Ser Lys Thr Gln Val Leu Asp Trp Ile Ser  
 100 105 110  
 Tyr Gln Val Glu Lys Asn Lys Tyr Asp Ala Ser Ala Ile Asp Phe Ser  
 115 120 125  
 Arg Cys Asp Met Asp Gly Ala Thr Leu Cys Asn Cys Ala Leu Glu Glu  
 130 135 140  
 Leu Arg Leu Val Phe Gly Pro Leu Gly Asp Gln Leu His Ala Gln Leu  
 145 150 155 160  
 Arg Asp Leu Thr Ser Ser Ser Ser Asp Glu Leu Ser Trp Ile Ile Glu  
 165 170 175  
 Leu Leu Glu Lys Asp Gly Met Ala Phe Gln Glu Ala Leu Asp Pro Gly  
 180 185 190  
 Pro Phe Asp Gln Gly Ser Pro Phe Ala Gln Glu Leu Leu Asp Asp Gly  
 195 200 205  
 Gln Gln Ala Ser Pro Tyr His Pro Gly Ser Cys Gly Ala Gly Ala Pro  
 210 215 220  
 Ser Pro Gly Ser Ser Asp Val Ser Thr Ala Gly Thr Gly Ala Ser Arg  
 225 230 235 240  
 Ser Ser His Ser Ser Asp Ser Gly Gly Ser Asp Val Asp Leu Asp Pro  
 245 250 255  
 Thr Asp Gly Lys Leu Phe Pro Ser Asp Gly Phe Arg Asp Cys Lys Lys  
 260 265 270  
 Gly Asp Pro Lys His Gly Lys Arg Lys Arg Gly Arg Pro Arg Lys Leu  
 275 280 285  
 Ser Lys Glu Tyr Trp Asp Cys Leu Glu Gly Lys Lys Ser Lys His Ala  
 290 295 300  
 Pro Arg Gly Thr His Leu Trp Glu Phe Ile Arg Asp Ile Leu Ile His  
 305 310 315 320  
 Pro Glu Leu Asn Glu Gly Leu Met Lys Trp Glu Asn Arg His Glu Gly  
 325 330 335

1033

Val Phe Lys Phe Leu Arg Ser Glu Ala Val Ala Gln Leu Trp Gly Gln  
                   340                  345                  350  
 Lys Lys Lys Asn Ser Asn Met Thr Tyr Glu Lys Leu Ser Arg Ala Met  
                   355                  360                  365  
 Arg Tyr Tyr Tyr Lys Arg Glu Ile Leu Glu Arg Val Asp Gly Arg Arg  
                   370                  375                  380  
 Leu Val Tyr Lys Phe Gly Lys Asn Ser Ser Gly Trp Lys Glu Glu Glu  
                   385                  390                  395                  400  
 Val Leu Gln Ser Arg Asn  
                                   405

&lt;210&gt; 1050

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1050

Arg Pro Ala Leu Asp Thr Cys Cys Pro Phe Pro Ala Arg Ile Leu Gly  
   1                  5                  10                  15  
 Ser Phe Pro Leu Ser Gln His Leu Gly Pro Ala Phe Asp Thr Thr Pro  
                   20                  25                  30  
 Arg Leu Pro Thr Leu Arg Ala Trp Ser Leu Pro Gln Gly Pro Leu Ser  
                   35                  40                  45  
 Trp Ala Met Ala Xaa Lys Gly Val Leu Gly Pro Gly Gln Leu Gly Ala  
                   50                  55                  60  
 Val Ala Ile Leu Leu Tyr Leu Gly Leu Leu Arg Ser Gly Thr Gly Ala  
   65                  70                  75                  80  
 Glu Gly Ala Glu Ala Xaa Cys Gly Val Ala Pro Gln Ala Arg Ile Thr  
                   85                  90                  95

1034

Gly Gly Ser Ser Ala Val Ala Gly Gln Trp Pro Trp Gln Val Ser Ile  
                   100                  105                  110  
 Thr Tyr Glu Gly Val His Val Cys Gly Gly Ser Leu Val Ser Glu Gln  
                   115                  120                  125  
 Trp Val Leu Ser Ala Ala His Cys Phe Pro Ser Glu His His Lys Glu  
                   130                  135                  140  
 Ala Tyr Glu Val Lys Leu Gly Ala His Gln Leu Asp Ser Tyr Ser Glu  
                   145                  150                  155                  160  
 Asp Ala Lys Val Ser Thr Leu Lys Asp Ile Ile Pro His Pro Ser Tyr  
                   165                  170                  175  
 Leu Gln Glu Gly Ser Gln Gly Asp Ile Ala Leu Leu Gln Leu Ser Arg  
                   180                  185                  190  
 Pro Ile Thr Phe Ser Arg Tyr Ile Arg Pro Ile Cys Leu Pro Ala Ala  
                   195                  200                  205  
 Asn Ala Ser Phe Pro Asn Gly Leu His Cys Thr Val Thr Gly Trp Gly  
                   210                  215                  220  
 His Val Ala Pro Ser Val Ser Leu Leu Thr Pro Lys Pro Leu Gln Gln  
                   225                  230                  235                  240  
 Leu Glu Val Pro Leu Ile Ser Arg Glu Thr Trp  
                   245                  250

&lt;210&gt; 1051

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1051

His Tyr Arg Arg Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Arg Gly Arg  
   1                  5                  10                  15  
 Val Asp Ile Arg Arg Arg Ser Ser Arg Arg Pro Arg Glu Pro Pro Gly  
                   20                  25                  30  
 Pro Ser Arg Arg Arg Arg Arg Arg Arg Pro Asp Pro Arg Thr Met Pro  
                   35                  40                  45  
 Ser Glu Lys Thr Phe Lys Gln Arg Arg Thr Phe Glu Gln Arg Val Glu  
                   50                  55                  60  
 Asp Val Arg Leu Ile Arg Glu Gln His Pro Thr Lys Ile Pro Val Ile

1035

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65              70              75              80
Ile Glu Arg Tyr Lys Gly Glu Lys Gln Leu Pro Val Leu Asp Lys Thr
      85              90              95
Lys Phe Leu Val Pro Asp His Val Asn Met Ser Glu Leu Ile Lys Ile
      100             105             110
Ile Arg Arg Arg Leu Gln Leu Asn Ala Asn Gln Ala Phe Phe Leu Leu
      115             120             125
Val Asn Gly His Ser Met Val Ser Val Ser Thr Pro Ile Ser Glu Val
      130             135             140
Tyr Glu Ser Glu Lys Asp Glu Asp Gly Phe Leu Tyr Met Val Tyr Ala
145             150             155             160
Ser Gln Glu Thr Phe Gly Met Lys Leu Ser Val
      165             170

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&lt;210&gt; 1052

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1052

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Gly Gly Pro Thr Cys Ser Ala Arg Cys Glu Pro Val Arg Pro Pro Pro
  1              5              10              15
Ala Pro Glu Gln Pro Ala Ser Leu His Arg Leu Leu Ser Val Leu Ser
      20              25              30
Pro Arg Ala Ala Ile Ala Val Met Leu Gly Ala Ala Leu Arg Arg Cys
      35              40              45
Ala Val Ala Ala Thr Thr Arg Ala Asp Pro Arg Gly Leu Leu His Ser
      50              55              60
Ala Arg Thr Pro Gly Pro Ala Val Ala Ile Gln Ser Val Arg Cys Tyr
      65              70              75              80
Ser His Gly Ser Gln Glu Thr Asp Glu Glu Phe Asp Ala Arg Trp Val
      85              90              95
Thr Tyr Phe Asn Lys Pro Asp Ile Asp Ala Trp Glu Leu Arg Lys Gly
      100             105             110
Ile Asn Thr Leu Val Thr Tyr Asp Met Val Pro Glu Pro Lys Ile Ile
      115             120             125

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1036

Asp Ala Ala Leu Arg Ala Cys Arg Arg Leu Asn Asp Phe Ala Ser Thr  
 130 135 140

Val Arg Ile Leu Glu Val Val Lys Asp Lys Ala Gly Pro His Lys Glu  
 145 150 155 160

Ile Tyr Pro Tyr Val Ile Gln Glu Leu Arg Pro Thr Leu Asn Glu Leu  
 165 170 175

Gly Ile Ser Thr Pro Glu Glu Leu Gly Leu Asp Lys Val  
 180 185

&lt;210&gt; 1053

&lt;211&gt; 315

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1053

Arg His Ser Ala Ser Pro Arg Cys Arg Leu Pro Pro Thr Glu Pro Val  
 1 5 10 15

Ser Gly Leu Arg Ala Ser Gly Glu Met Leu Leu Pro Leu Leu Leu Leu  
 20 25 30

Leu Pro Met Cys Trp Ala Val Glu Val Lys Arg Pro Arg Gly Val Ser  
 35 40 45

Leu Thr Asn His His Phe Tyr Asp Glu Ser Lys Pro Phe Thr Cys Leu  
 50 55 60

Asp Gly Ser Ala Thr Ile Pro Phe Asp Gln Val Asn Asp Asp Tyr Cys  
 65 70 75 80

Asp Cys Lys Asp Gly Ser Asp Glu Pro Gly Thr Ala Ala Cys Pro Asn  
 85 90 95

Gly Ser Phe His Cys Thr Asn Thr Gly Tyr Lys Pro Leu Tyr Ile Pro  
 100 105 110

Ser Asn Arg Val Asn Asp Gly Val Cys Asp Cys Cys Asp Gly Thr Asp  
 115 120 125

Glu Tyr Asn Ser Gly Val Ile Cys Glu Asn Thr Cys Lys Glu Lys Gly  
 130 135 140

Arg Lys Glu Arg Glu Ser Leu Gln Gln Met Ala Glu Val Thr Arg Glu  
 145 150 155 160



1037

Gly Phe Arg Leu Lys Lys Ile Leu Ile Glu Asp Trp Lys Lys Ala Arg  
                   165                  170                  175  
 Glu Glu Lys Gln Lys Lys Leu Ile Glu Leu Gln Ala Gly Lys Lys Ser  
                   180                  185                  190  
 Leu Glu Asp Gln Val Glu Met Leu Arg Thr Val Lys Glu Glu Ala Glu  
                   195                  200                  205  
 Lys Pro Glu Arg Glu Ala Lys Glu Gln His Gln Lys Leu Trp Glu Glu  
                   210                  215                  220  
 Gln Leu Ala Ala Ala Lys Ala Gln Gln Glu Gln Glu Leu Ala Ala Asp  
                   225                  230                  235                  240  
 Ala Phe Lys Glu Leu Asp Asp Asp Met Asp Gly Thr Val Ser Val Thr  
                   245                  250                  255  
 Glu Leu Gln Thr His Pro Glu Leu Asp Thr Asp Gly Asp Gly Ala Leu  
                   260                  265                  270  
 Ser Glu Ala Glu Ala Gln Ala Leu Leu Ser Gly Asp Thr Gln Thr Asp  
                   275                  280                  285  
 Ala Thr Ser Phe Tyr Asp Arg Val Trp Gly Pro Gly Gly Ala Gly Pro  
                   290                  295                  300  
 His Ser Gln Ala Pro Thr Ala Phe Lys Asp Gly  
                   305                  310                  315

&lt;210&gt; 1054

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1054

Val Trp Lys Val Ile Val Trp Ser His Ser Ser Leu Ile Thr Leu Leu  
   1                  5                  10                  15  
 Gly Ile Leu Glu Glu Lys Gly Ser Lys Thr Tyr Thr His Thr Pro Thr  
                   20                  25                  30  
 Gln Ser Asn Ser Val Phe Lys Gln Ile Pro Arg Ile Leu Gly Pro Gly  
                   35                  40                  45  
 Leu Asn Lys Ala Gly Lys Phe Pro Ser Leu Leu Thr His Asn Glu Asn  
                   50                  55                  60  
 Met Val Ala Lys Val Asp Glu Val Lys Ser Thr Ile Lys Phe Gln Met

1038

65                      70                      75                      80  
 Lys Lys Val Leu Cys Leu Ala Val Ala Val Gly His Val Lys Met Thr  
                                  85                      90                      95  
 Asp Asp Glu Leu Val Tyr Asn Ile His Leu Ala Val Asn Phe Leu Val  
                                  100                      105                      110  
 Ser Leu Leu Lys Lys Asn Trp Gln Asn Val Arg Ala Leu Tyr Ile Lys  
                                  115                      120                      125  
 Ser Thr Met Gly Lys Pro Gln Arg Leu Tyr  
                                  130                      135

<210> 1055  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 1055  
 Gly Thr Arg Glu Glu Ala Gly Val Asp Leu Val Ser Pro Thr Pro Leu  
   1                      5                      10                      15  
 Thr Pro Pro Asp Pro Gly Ala Ala Ser Ala Thr Ala Thr Ala Pro Ala  
                                  20                      25                      30  
 Pro Ala Ala Ala Arg Arg Gly Glu Ala Met Ala Lys Val Ser Val Leu  
                                  35                      40                      45  
 Asn Val Ala Val Leu Glu Asn Pro Ser Pro Phe His Ser Pro Phe Arg  
                                  50                      55                      60  
 Phe Glu Ile Ser Phe Glu Cys Ser Glu Ala Leu Ala Asp Asp Leu Glu  
   65                      70                      75                      80  
 Trp Lys Ile Ile Tyr Val Gly Ser Ala Glu Ser Glu Glu Phe Asp Gln  
                                  85                      90                      95  
 Ile Leu Asp Ser Val Leu Val Gly Pro Val Pro Ala Gly Arg His Met  
                                  100                      105                      110  
 Phe Val Phe Gln Ala Asp Ala Pro Asn Pro Ser Leu Ile Pro Glu Thr  
                                  115                      120                      125  
 Asp Ala Val Gly Val Thr Val Val Leu Ile Thr Cys Thr Tyr His Gly  
                                  130                      135                      140  
 Gln Glu Phe Ile Arg Val Gly Tyr Tyr Val Asn Asn Glu Tyr Leu Asn  
   145                      150                      155                      160

1039

Pro Glu Leu Arg Glu Asn Pro Pro Met Lys Pro Asp Phe Ser Gln Leu  
                     165                    170                    175  
 Gln Arg Asn Ile Leu Ala Ser Asn Pro Arg Val Thr Arg Phe His Ile  
                     180                    185                    190  
 Asn Trp Asp Asn Asn Met Asp Arg Leu Glu Ala Ile Glu Thr Gln Asp  
                     195                    200                    205  
 Pro Ser Leu Gly Cys Gly Leu Pro Leu Asn Cys Thr Pro Ile Lys Gly  
                     210                    215                    220  
 Leu Gly Leu Pro Gly Cys Ile Pro Gly Leu Leu Pro Glu Asn Ser Met  
                     225                    230                    235                    240  
 Asp Cys Ile

&lt;210&gt; 1056

&lt;211&gt; 211

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1056

His Glu Pro Arg Arg Leu Leu Xaa Asp Ala Glu Gly Pro Glu Glu Thr  
           1                    5                    10                    15

Val Arg Leu Trp Pro Ala Ala Arg Ala Ala Met Asp Ala Ala Glu Val  
                     20                    25                    30

Glu Phe Leu Ala Glu Lys Glu Leu Val Thr Ile Ile Pro Asn Phe Ser  
                     35                    40                    45

Leu Asp Lys Ile Tyr Leu Ile Gly Gly Asp Leu Gly Pro Phe Asn Pro  
                     50                    55                    60

Gly Leu Pro Val Glu Val Pro Leu Trp Leu Ala Ile Asn Leu Lys Gln  
                     65                    70                    75                    80

Arg Gln Lys Cys Arg Leu Leu Pro Pro Glu Trp Met Asp Val Glu Lys  
                     85                    90                    95

Leu Glu Lys Met Arg Asp His Glu Arg Lys Glu Glu Thr Phe Thr Pro

1040

100	105	110
Met Pro Ser Pro Tyr Tyr Met	Glu Leu Thr Lys Leu Leu Leu Asn His	
115	120	125
Ala Ser Asp Asn Ile Pro Lys Ala Asp Glu Ile Arg Thr Leu Val Lys		
130	135	140
Asp Met Trp Asp Thr Arg Ile Ala Lys Leu Arg Val Ser Ala Asp Ser		
145	150	155 160
Phe Val Arg Gln Gln Glu Ala His Ala Lys Leu Asp Asn Leu Thr Leu		
165	170	175
Met Glu Ile Asn Thr Ser Gly Thr Phe Leu Thr Gln Ala Leu Asn His		
180	185	190
Met Tyr Lys Leu Arg Thr Asn Leu Gln Pro Leu Glu Ser Thr Gln Ser		
195	200	205
Gln Asp Phe		
210		

&lt;210&gt; 1057

&lt;211&gt; 407

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (343)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1057

Val Ile Leu Gly Ala Gly Leu Arg Asp Lys Asp Met Trp Ile Pro Val		
1	5	10 15
Val Gly Leu Pro Arg Arg Leu Arg Leu Ser Ala Leu Ala Gly Ala Gly		
20	25	30
Arg Phe Cys Ile Leu Gly Ser Glu Ala Ala Thr Arg Lys His Leu Pro		
35	40	45
Ala Arg Asn His Cys Gly Leu Ser Asp Ser Ser Pro Gln Leu Trp Pro		
50	55	60
Glu Pro Asp Phe Arg Asn Pro Pro Arg Lys Ala Ser Lys Ala Ser Leu		
65	70	75 80

1041

Asp	Phe	Lys	Arg	Tyr	Val	Thr	Asp	Arg	Arg	Leu	Ala	Glu	Thr	Leu	Ala	85	90	95
Gln	Ile	Tyr	Leu	Gly	Lys	Pro	Ser	Arg	Pro	Pro	His	Leu	Leu	Leu	Glu	100	105	110
Cys	Asn	Pro	Gly	Pro	Gly	Ile	Leu	Thr	Gln	Ala	Leu	Leu	Glu	Ala	Gly	115	120	125
Ala	Lys	Val	Val	Ala	Leu	Glu	Ser	Asp	Lys	Thr	Phe	Ile	Pro	His	Leu	130	135	140
Glu	Ser	Leu	Gly	Lys	Asn	Leu	Asp	Gly	Lys	Leu	Arg	Val	Ile	His	Cys	145	150	155
Asp	Phe	Phe	Lys	Leu	Asp	Pro	Arg	Ser	Gly	Gly	Val	Ile	Lys	Pro	Pro	165	170	175
Ala	Met	Ser	Ser	Arg	Gly	Leu	Phe	Lys	Asn	Leu	Gly	Ile	Glu	Ala	Val	180	185	190
Pro	Trp	Thr	Ala	Asp	Ile	Pro	Leu	Lys	Val	Val	Gly	Met	Phe	Pro	Ser	195	200	205
Arg	Gly	Glu	Lys	Arg	Ala	Leu	Trp	Lys	Leu	Ala	Tyr	Asp	Leu	Tyr	Ser	210	215	220
Cys	Thr	Ser	Ile	Tyr	Lys	Phe	Gly	Arg	Ile	Glu	Val	Asn	Met	Phe	Ile	225	230	235
Gly	Glu	Lys	Glu	Phe	Gln	Lys	Leu	Met	Ala	Asp	Pro	Gly	Asn	Pro	Asp	245	250	255
Leu	Tyr	His	Val	Leu	Ser	Val	Ile	Trp	Gln	Leu	Ala	Cys	Glu	Ile	Lys	260	265	270
Val	Leu	His	Met	Glu	Pro	Trp	Ser	Ser	Phe	Asp	Ile	Tyr	Thr	Arg	Lys	275	280	285
Gly	Pro	Leu	Glu	Asn	Pro	Lys	Arg	Arg	Glu	Leu	Leu	Asp	Gln	Leu	Gln	290	295	300
Gln	Lys	Leu	Tyr	Leu	Ile	Gln	Met	Ile	Pro	Arg	Gln	Asn	Leu	Phe	Thr	305	310	315
Lys	Asn	Leu	Thr	Pro	Met	Asn	Tyr	Asn	Ile	Phe	Phe	His	Leu	Leu	Lys	325	330	335
His	Cys	Phe	Gly	Arg	Arg	Xaa	Ala	Thr	Val	Ile	Asp	His	Leu	Arg	Ser	340	345	350

1042

Leu Thr Pro Leu Asp Ala Arg Asp Ile Leu Met Gln Ile Gly Lys Gln  
355 360 365

Glu Asp Glu Lys Val Val Asn Met His Pro Gln Asp Phe Lys Thr Leu  
370 375 380

Phe Glu Thr Ile Glu Arg Ser Lys Asp Cys Ala Tyr Lys Trp Leu Tyr  
385 390 395 400

Asp Glu Thr Leu Glu Asp Arg  
405

<210> 1058

<211> 89

<212> PRT

<213> Homo sapiens

<400> 1058

Ser Ser Trp Val Gly Gly Ser Leu Arg Gln Ala Ala Thr Leu Glu Gly  
1 5 10 15

Glu Gln Gly Ser Ala Val Ser Ala Ala Ser His Ala Arg Ser Asp Leu  
20 25 30

Ser Leu Gly Thr Pro Gln Glu Pro Glu Asp Ser Ser Gly Gln Cys Arg  
35 40 45

Trp Gly Val Gly Gly Glu Ser Gly Arg Glu Ala Leu Arg Ala Pro Ser  
50 55 60

Pro	Thr	Thr	Asn	Leu	Ala	Leu	Val	Val	Ile	Phe	Arg	Gln	Asn	Phe	Val
65					70					75					80

Val Phe Phe Pro Phe Tyr Asp Gly Phe  
85

<210> 1059

**<211> 457**

<212> PRT

<213> Homo sapiens

<400> 1059

Gly Thr Arg Pro Ser Ser Cys Ser Gln Thr Glu Ala Gln Pro Pro Ser  
1 5 10 15

Pro Val Ser Ile Thr Ser Ala Ala Ser Met Ser Asp Lys Leu Pro Tyr  
20 25 30

1043

Lys Val Ala Asp Ile Gly Leu Ala Ala Trp Gly Arg Lys Ala Leu Asp  
 35 40 45  
 Ile Ala Glu Asn Glu Met Pro Gly Leu Met Arg Met Arg Glu Arg Tyr  
 50 55 60  
 Ser Ala Ser Lys Pro Leu Lys Gly Ala Arg Ile Ala Gly Cys Leu His  
 65 70 75 80  
 Met Thr Val Glu Thr Ala Val Leu Ile Glu Thr Leu Val Thr Leu Gly  
 85 90 95  
 Ala Glu Val Gln Trp Ser Ser Cys Asn Ile Phe Ser Thr Gln Asp His  
 100 105 110  
 Ala Ala Ala Ala Ile Ala Lys Ala Gly Ile Pro Val Tyr Ala Trp Lys  
 115 120 125  
 Gly Glu Thr Asp Glu Glu Tyr Leu Trp Cys Ile Glu Gln Thr Leu Tyr  
 130 135 140  
 Phe Lys Asp Gly Pro Leu Asn Met Ile Leu Asp Asp Gly Gly Asp Leu  
 145 150 155 160  
 Thr Asn Leu Ile His Thr Lys Tyr Pro Gln Leu Leu Pro Gly Ile Arg  
 165 170 175  
 Gly Ile Ser Glu Glu Thr Thr Thr Gly Val His Asn Leu Tyr Lys Met  
 180 185 190  
 Met Ala Asn Gly Ile Leu Lys Val Pro Ala Ile Asn Val Asn Asp Ser  
 195 200 205  
 Val Thr Lys Ser Lys Phe Asp Asn Leu Tyr Gly Cys Arg Glu Ser Leu  
 210 215 220  
 Ile Asp Gly Ile Lys Arg Ala Thr Asp Val Met Ile Ala Gly Lys Val  
 225 230 235 240  
 Ala Val Val Ala Gly Tyr Gly Asp Val Gly Lys Gly Cys Ala Gln Ala  
 245 250 255  
 Leu Arg Gly Phe Gly Ala Arg Val Ile Ile Thr Glu Ile Asp Pro Ile  
 260 265 270  
 Asn Ala Leu Gln Ala Ala Met Glu Gly Tyr Glu Val Thr Thr Met Asp  
 275 280 285  
 Glu Ala Cys Gln Glu Gly Asn Ile Phe Val Thr Thr Thr Gly Cys Ile  
 290 295 300

1044

Asp Ile Ile Leu Gly Arg His Phe Glu Gln Met Lys Asp Asp Ala Ile  
 305 310 315 320

Val Cys Asn Ile Gly His Phe Asp Val Glu Ile Asp Val Lys Trp Leu  
 325 330 335

Asn Glu Asn Ala Val Glu Lys Val Asn Ile Lys Pro Gln Val Asp Arg  
 340 345 350

Tyr Arg Leu Lys Asn Gly Arg Arg Ile Ile Leu Leu Ala Glu Gly Arg  
 355 360 365

Leu Val Asn Leu Gly Cys Ala Met Gly His Pro Ser Phe Val Met Ser  
 370 375 380

Asn Ser Phe Thr Asn Gln Val Met Ala Gln Ile Glu Leu Trp Thr His  
 385 390 395 400

Pro Asp Lys Tyr Pro Val Gly Val His Phe Leu Pro Lys Lys Leu Asp  
 405 410 415

Glu Ala Val Ala Glu Ala His Leu Gly Lys Leu Asn Val Lys Leu Thr  
 420 425 430

Lys Leu Thr Glu Lys Gln Ala Gln Tyr Leu Gly Met Ser Cys Asp Gly  
 435 440 445

Pro Phe Lys Pro Asp His Tyr Arg Tyr  
 450 455

<210> 1060

<211> 511

<212> PRT

<213> Homo sapiens

<400> 1060

Glu Gly Val Met Ala Asp Gly Gln Val Ala Glu Leu Leu Leu Arg Arg  
 1 5 10 15

Leu Glu Ala Ser Asp Gly Gly Leu Asp Ser Ala Glu Leu Ala Ala Glu  
 20 25 30

Leu Gly Met Glu His Gln Ala Val Val Gly Ala Val Lys Ser Leu Gln  
 35 40 45

Ala Leu Gly Glu Val Ile Glu Ala Glu Leu Arg Ser Thr Lys His Trp  
 50 55 60



1045

Glu	Leu	Thr	Ala	Glu	Gly	Glu	Glu	Ile	Ala	Arg	Glu	Gly	Ser	His	Glu	65	70	75	80
Ala	Arg	Val	Phe	Arg	Ser	Ile	Pro	Pro	Glu	Gly	Leu	Ala	Gln	Ser	Glu	85	90	95	
Leu	Met	Arg	Leu	Pro	Ser	Gly	Lys	Val	Gly	Phe	Ser	Lys	Ala	Met	Ser	100	105	110	
Asn	Lys	Trp	Ile	Arg	Val	Asp	Lys	Ser	Ala	Ala	Asp	Gly	Pro	Arg	Val	115	120	125	
Phe	Arg	Val	Val	Asp	Ser	Met	Glu	Asp	Glu	Val	Gln	Arg	Arg	Leu	Gln	130	135	140	
Leu	Val	Arg	Gly	Gly	Gln	Ala	Glu	Lys	Leu	Gly	Glu	Lys	Glu	Arg	Ser	145	150	155	160
Glu	Leu	Arg	Lys	Arg	Lys	Leu	Leu	Ala	Glu	Val	Thr	Leu	Lys	Thr	Tyr	165	170	175	
Trp	Val	Ser	Lys	Gly	Ser	Ala	Phe	Ser	Thr	Ser	Ile	Ser	Lys	Gln	Glu	180	185	190	
Thr	Glu	Leu	Ser	Pro	Glu	Met	Ile	Ser	Ser	Gly	Ser	Trp	Arg	Asp	Arg	195	200	205	
Pro	Phe	Lys	Pro	Tyr	Asn	Phe	Leu	Ala	His	Gly	Val	Leu	Pro	Asp	Ser	210	215	220	
Gly	His	Leu	His	Pro	Leu	Leu	Lys	Val	Arg	Ser	Gln	Phe	Arg	Gln	Ile	225	230	235	240
Phe	Leu	Glu	Met	Gly	Phe	Thr	Glu	Met	Pro	Thr	Asp	Asn	Phe	Ile	Glu	245	250	255	
Ser	Ser	Phe	Trp	Asn	Phe	Asp	Ala	Leu	Phe	Gln	Pro	Gln	Gln	His	Pro	260	265	270	
Ala	Arg	Asp	Gln	His	Asp	Thr	Phe	Phe	Leu	Arg	Asp	Pro	Ala	Glu	Ala	275	280	285	
Leu	Gln	Leu	Pro	Met	Asp	Tyr	Val	Gln	Arg	Val	Lys	Arg	Thr	His	Ser	290	295	300	
Gln	Gly	Gly	Tyr	Gly	Ser	Gln	Gly	Tyr	Lys	Tyr	Asn	Trp	Lys	Leu	Asp	305	310	315	320
Glu	Ala	Arg	Lys	Asn	Leu	Leu	Arg	Thr	His	Thr	Thr	Ser	Ala	Ser	Ala	325	330	335	

1046

Arg Ala Leu Tyr Arg Leu Ala Gln Lys Lys Pro Phe Thr Pro Val Lys  
                   340                  345                  350  
 Tyr Phe Ser Ile Asp Arg Val Phe Arg Asn Glu Thr Leu Asp Ala Thr  
                   355                  360                  365  
 His Leu Ala Glu Phe His Gln Ile Glu Gly Val Val Ala Asp His Gly  
                   370                  375                  380  
 Leu Thr Leu Gly His Leu Met Gly Val Leu Arg Glu Phe Phe Thr Lys  
                   385                  390                  395                  400  
 Leu Gly Ile Thr Gln Leu Arg Phe Lys Pro Ala Tyr Asn Pro Tyr Thr  
                   405                  410                  415  
 Glu Pro Ser Met Glu Val Phe Ser Tyr His Gln Gly Leu Lys Lys Trp  
                   420                  425                  430  
 Val Glu Val Gly Asn Ser Gly Val Phe Arg Pro Glu Met Leu Leu Pro  
                   435                  440                  445  
 Met Gly Leu Pro Glu Asn Val Ser Val Ile Ala Trp Gly Leu Ser Leu  
                   450                  455                  460  
 Glu Arg Pro Thr Met Ile Lys Tyr Gly Ile Asn Asn Ile Arg Glu Leu  
                   465                  470                  475                  480  
 Val Gly His Lys Val Asn Leu Gln Met Val Tyr Asp Ser Pro Leu Cys  
                   485                  490                  495  
 Arg Leu Asp Ala Glu Pro Arg Pro Pro Pro Thr Gln Glu Ala Ala  
                   500                  505                  510

&lt;210&gt; 1061

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1061

Arg Ala Ala Ser Thr Pro Arg Ala Ala Pro Gly Ala Ala Leu Leu Ser  
   1                  5                  10                  15  
 Pro Pro Gly Leu Arg Ala Ala Pro Ala Ala Leu Val Met Gly Glu Gly  
                   20                  25                  30  
 Thr Cys Glu Lys Arg Arg Asp Ala Glu Tyr Gly Ala Ser Pro Glu Gln  
                   35                  40                  45  
 Val Ala Asp Asn Gly Asp Asp His Ser Glu Gly Gly Leu Val Glu Asn

1047

50                      55                      60  
 His Val Asp Ser Thr Met Asn Met Leu Gly Gly Gly Gly Ser Ala Gly  
 65                      70                      75                      80  
 Arg Lys Pro Leu Lys Ser Gly Met Lys Glu Leu Ala Val Phe Arg Glu  
                     85                      90                      95  
 Lys Val Thr Glu Gln His Arg Gln Met Gly Lys Gly Gly Lys His His  
                     100                      105                      110  
 Leu Gly Leu Glu Glu Pro Lys Lys Leu Arg Pro Pro Pro Ala Arg Thr  
                     115                      120                      125  
 Pro Cys Gln Gln Glu Leu Asp Gln Val Leu Glu Arg Ile Ser Thr Met  
                     130                      135                      140  
 Arg Leu Pro Asp Glu Arg Gly Pro Leu Glu His Leu Tyr Ser Leu His  
                     145                      150                      155                      160  
 Ile Pro Asn Cys Asp Lys His Gly Leu Tyr Asn Leu Lys Gln Cys Lys  
                     165                      170                      175  
 Met Ser Leu Asn Gly Gln Arg Gly Glu Cys Trp Cys Val Asn Pro Asn  
                     180                      185                      190  
 Thr Gly Lys Leu Ile Gln Gly Ala Pro Thr Ile Arg Gly Asp Pro Glu  
                     195                      200                      205  
 Cys His Leu Phe Tyr Asn Glu Gln Gln Glu Ala Arg Gly Val His Thr  
                     210                      215                      220  
 Gln Arg Met Gln  
 225

&lt;210&gt; 1062

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1062

Pro Arg Val Met Ala Met Ala Thr Lys Gly Gly Thr Val Lys Ala Ala  
 1                      5                      10                      15  
 Ser Gly Phe Asn Ala Met Glu Asp Ala Gln Thr Leu Arg Lys Ala Met  
                     20                      25                      30  
 Lys Gly Leu Gly Thr Asp Glu Asp Ala Ile Ile Ser Val Leu Ala Tyr  
                     35                      40                      45

1048

Arg	Asn	Thr	Ala	Gln	Arg	Gln	Glu	Ile	Arg	Thr	Ala	Tyr	Lys	Ser	Thr	50	55	60	
Ile	Gly	Arg	Asp	Leu	Ile	Asp	Asp	Leu	Lys	Ser	Glu	Leu	Ser	Gly	Asn	65	70	75	80
Phe	Glu	Gln	Val	Ile	Val	Gly	Met	Met	Thr	Pro	Thr	Val	Leu	Tyr	Asp	85	90	95	
Val	Gln	Glu	Leu	Arg	Arg	Ala	Met	Lys	Gly	Ala	Gly	Thr	Asp	Glu	Gly	100	105	110	
Cys	Leu	Ile	Glu	Ile	Leu	Ala	Ser	Arg	Thr	Pro	Glu	Glu	Ile	Arg	Arg	115	120	125	
Ile	Ser	Gln	Thr	Tyr	Gln	Gln	Gln	Tyr	Gly	Arg	Ser	Leu	Glu	Asp	Asp	130	135	140	
Ile	Arg	Ser	Asp	Thr	Ser	Phe	Met	Phe	Gln	Arg	Val	Leu	Val	Ser	Leu	145	150	155	160
Ser	Ala	Gly	Gly	Arg	Asp	Glu	Gly	Asn	Tyr	Leu	Asp	Asp	Ala	Leu	Val	165	170	175	
Arg	Gln	Asp	Ala	Gln	Asp	Leu	Tyr	Glu	Ala	Gly	Glu	Lys	Lys	Trp	Gly	180	185	190	
Thr	Asp	Glu	Val	Lys	Phe	Leu	Thr	Val	Leu	Cys	Ser	Arg	Asn	Arg	Asn	195	200	205	
His	Leu	Leu	His	Val	Phe	Asp	Glu	Tyr	Lys	Arg	Ile	Ser	Gln	Lys	Asp	210	215	220	
Ile	Glu	Gln	Ser	Ile	Lys	Ser	Glu	Thr	Ser	Gly	Ser	Phe	Glu	Asp	Ala	225	230	235	240
Leu	Leu	Ala	Ile	Val	Lys	Cys	Met	Arg	Asn	Lys	Ser	Ala	Tyr	Phe	Ala	245	250	255	
Glu	Lys	Leu	Tyr	Lys	Ser	Met	Lys	Gly	Leu	Gly	Thr	Asp	Asp	Asn	Thr	260	265	270	
Leu	Ile	Arg	Val	Met	Val	Ser	Arg	Ala	Glu	Ile	Asp	Met	Leu	Asp	Ile	275	280	285	
Arg	Ala	His	Phe	Lys	Arg	Leu	Tyr	Gly	Lys	Ser	Leu	Tyr	Ser	Phe	Ile	290	295	300	
Lys	Gly	Asp	Thr	Ser	Gly	Asp	Tyr	Arg	Lys	Val	Leu	Leu	Val	Leu	Cys	305	310	315	320

1049

Gly Gly Asp Asp

&lt;210&gt; 1063

&lt;211&gt; 355

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1063

Xaa	Tyr	Xaa	Ile	Pro	Gly	Ser	Thr	His	Ala	Ser	Gly	Lys	Ile	Leu	Gly
1				5					10					15	

Ser	Gly	Ile	Ser	Ser	Ser	Ser	Val	Leu	His	Gly	Met	Val	Phe	Lys	Lys
			20					25					30		

Glu	Thr	Glu	Val	Xaa	Val	Thr	Ser	Val	Lys	Asp	Ala	Lys	Ile	Ala	Val
		35					40					45			

Tyr	Ser	Cys	Pro	Phe	Asp	Gly	Met	Ile	Thr	Glu	Thr	Lys	Gly	Thr	Val
	50					55					60				

Leu	Ile	Lys	Thr	Ala	Glu	Glu	Leu	Met	Asn	Phe	Ser	Lys	Gly	Glu	Glu
65					70					75				80	

Asn	Leu	Met	Asp	Ala	Gln	Val	Lys	Ala	Ile	Ala	Asp	Thr	Gly	Ala	Asn
			85						90					95	

Val	Val	Val	Thr	Gly	Gly	Lys	Val	Ala	Asp	Met	Ala	Leu	His	Tyr	Ala
			100					105					110		

Asn	Lys	Tyr	Asn	Ile	Met	Leu	Val	Arg	Leu	Asn	Ser	Lys	Trp	Asp	Leu
		115					120					125			

1050

Arg Arg Leu Cys Lys Thr Val Gly Ala Thr Ala Leu Pro Arg Leu Thr  
 130 135 140  
 Pro Pro Val Leu Glu Glu Met Gly His Cys Asp Ser Val Tyr Leu Ser  
 145 150 155 160  
 Glu Val Gly Asp Thr Gln Val Val Val Phe Lys His Glu Lys Glu Asp  
 165 170 175  
 Gly Ala Ile Ser Thr Ile Val Leu Arg Gly Ser Thr Asp Asn Leu Met  
 180 185 190  
 Asp Asp Ile Glu Arg Ala Val Asp Asp Gly Val Asn Thr Phe Lys Val  
 195 200 205  
 Leu Thr Arg Asp Lys Arg Leu Val Pro Gly Gly Gly Ala Thr Glu Ile  
 210 215 220  
 Glu Leu Ala Lys Gln Ile Thr Ser Tyr Gly Glu Thr Cys Pro Gly Leu  
 225 230 235 240  
 Glu Gln Tyr Ala Ile Lys Lys Phe Ala Glu Ala Phe Glu Ala Ile Pro  
 245 250 255  
 Arg Ala Leu Ala Glu Asn Ser Gly Val Lys Ala Asn Glu Val Ile Ser  
 260 265 270  
 Lys Leu Tyr Ala Val His Gln Glu Gly Asn Lys Asn Val Gly Leu Asp  
 275 280 285  
 Ile Glu Ala Glu Val Pro Ala Val Lys Asp Met Leu Glu Ala Gly Ile  
 290 295 300  
 Leu Asp Thr Tyr Leu Gly Lys Tyr Trp Ala Ile Lys Leu Ala Thr Asn  
 305 310 315 320  
 Ala Ala Val Thr Val Leu Arg Val Asp Gln Ile Ile Met Ala Lys Pro  
 325 330 335  
 Ala Gly Gly Pro Lys Pro Pro Ser Gly Lys Lys Asp Trp Asp Asp Asp  
 340 345 350  
 Gln Asn Asp  
 355

&lt;210&gt; 1064

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1051

&lt;400&gt; 1064

Ser Pro Phe Thr Leu His Cys Cys His Ser Thr Leu Tyr Asp Gly Arg  
 1 5 10 15

Thr Gly Ser Ser Arg Glu Asn Cys Thr Val Thr Thr Val Phe Phe Thr  
 20 25 30

Leu Phe Gln Gly Ser Leu Ser Pro Asp Ile Glu Glu Ile Ser Phe Arg  
 35 40 45

Pro Glu Thr Gln Arg Pro His Ser Pro Val Ile Lys Pro Arg Phe His  
 50 55 60

Ser Gly Pro Arg Ser Gly Ala Trp Pro Leu Leu Phe Gly Ser His Trp  
 65 70 75 80

Glu Ala His Trp Pro Trp Ile Ile Ser Ser Cys Thr Pro Gly Val Leu  
 85 90 95

Pro Ala Cys Leu Leu Ser Trp Thr Ala Val Cys Lys Lys Val Thr Lys  
 100 105 110

Thr

&lt;210&gt; 1065

&lt;211&gt; 634

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (325)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1065

Val Gln Gly Phe Glu Ser Ala Thr Phe Leu Gly Tyr Phe Lys Ser Gly  
 1 5 10 15

Leu Lys Tyr Lys Lys Gly Gly Val Ala Ser Gly Phe Lys His Val Val  
 20 25 30

Pro Asn Glu Val Val Val Gln Arg Leu Phe Gln Val Lys Gly Arg Arg  
 35 40 45

Val Val Arg Ala Thr Glu Val Pro Val Ser Trp Glu Ser Phe Asn Asn  
 50 55 60

1052

Gly Asp Cys Phe Ile Leu Asp Leu Gly Asn Asn Ile His Gln Trp Cys  
 65 70 75 80  
 Gly Ser Asn Ser Asn Arg Tyr Glu Arg Leu Lys Ala Thr Gln Val Ser  
 85 90 95  
 Lys Gly Ile Arg Asp Asn Glu Arg Ser Gly Arg Ala Arg Val His Val  
 100 105 110  
 Ser Glu Glu Gly Thr Glu Pro Glu Ala Met Leu Gln Val Leu Gly Pro  
 115 120 125  
 Lys Pro Ala Leu Pro Ala Gly Thr Glu Asp Thr Ala Lys Glu Asp Ala  
 130 135 140  
 Ala Asn Arg Lys Leu Ala Lys Leu Tyr Lys Val Ser Asn Gly Ala Gly  
 145 150 155 160  
 Thr Met Ser Val Ser Leu Val Ala Asp Glu Asn Pro Phe Ala Gln Gly  
 165 170 175  
 Ala Leu Lys Ser Glu Asp Cys Phe Ile Leu Asp His Gly Lys Asp Gly  
 180 185 190  
 Lys Ile Phe Val Trp Lys Gly Lys Gln Ala Asn Thr Glu Glu Arg Lys  
 195 200 205  
 Ala Ala Leu Lys Thr Ala Ser Asp Phe Ile Thr Lys Met Asp Tyr Pro  
 210 215 220  
 Lys Gln Thr Gln Val Ser Val Leu Pro Glu Gly Gly Glu Thr Pro Leu  
 225 230 235 240  
 Phe Lys Gln Phe Phe Lys Asn Trp Arg Asp Pro Asp Gln Thr Asp Gly  
 245 250 255  
 Leu Gly Leu Ser Tyr Leu Ser Ser His Ile Ala Asn Val Glu Arg Val  
 260 265 270  
 Pro Phe Asp Ala Ala Thr Leu His Thr Ser Thr Ala Met Ala Ala Gln  
 275 280 285  
 His Gly Met Asp Asp Asp Gly Thr Gly Gln Lys Gln Ile Trp Arg Ile  
 290 295 300  
 Glu Gly Ser Asn Lys Val Pro Val Asp Pro Ala Thr Tyr Gly Gln Phe  
 305 310 315 320  
 Tyr Gly Gly Asp Xaa Tyr Ile Ile Leu Tyr Asn Tyr Arg His Gly Gly  
 325 330 335



1053

Arg Gln Gly Gln Ile Ile Tyr Asn Trp Gln Gly Ala Gln Ser Thr Gln  
 340 345 350  
 Asp Glu Val Ala Ala Ser Ala Ile Leu Thr Ala Gln Leu Asp Glu Glu  
 355 360 365  
 Leu Gly Gly Thr Pro Val Gln Ser Arg Val Val Gln Gly Lys Glu Pro  
 370 375 380  
 Ala His Leu Met Ser Leu Phe Gly Gly Lys Pro Met Ile Ile Tyr Lys  
 385 390 395 400  
 Gly Gly Thr Ser Arg Glu Gly Gly Gln Thr Ala Pro Ala Ser Thr Arg  
 405 410 415  
 Leu Phe Gln Val Arg Ala Asn Ser Ala Gly Ala Thr Arg Ala Val Glu  
 420 425 430  
 Val Leu Pro Lys Ala Gly Ala Leu Asn Ser Asn Asp Ala Phe Val Leu  
 435 440 445  
 Lys Thr Pro Ser Ala Ala Tyr Leu Trp Val Gly Thr Gly Ala Ser Glu  
 450 455 460  
 Ala Glu Lys Thr Gly Ala Gln Glu Leu Leu Arg Val Leu Arg Ala Gln  
 465 470 475 480  
 Pro Val Gln Val Ala Glu Gly Ser Glu Pro Asp Gly Phe Trp Glu Ala  
 485 490 495  
 Leu Gly Gly Lys Ala Ala Tyr Arg Thr Ser Pro Arg Leu Lys Asp Lys  
 500 505 510  
 Lys Met Asp Ala His Pro Pro Arg Leu Phe Ala Cys Ser Asn Lys Ile  
 515 520 525  
 Gly Arg Phe Val Ile Glu Glu Val Pro Gly Glu Leu Met Gln Glu Asp  
 530 535 540  
 Leu Ala Thr Asp Asp Val Met Leu Leu Asp Thr Trp Asp Gln Val Phe  
 545 550 555 560  
 Val Trp Val Gly Lys Asp Ser Gln Glu Glu Glu Lys Thr Glu Ala Leu  
 565 570 575  
 Thr Ser Ala Lys Arg Tyr Ile Glu Thr Asp Pro Ala Asn Arg Asp Arg  
 580 585 590  
 Arg Thr Pro Ile Thr Val Val Lys Gln Gly Phe Glu Pro Pro Ser Phe  
 595 600 605

1054

Val Gly Trp Phe Leu Gly Trp Asp Asp Asp Tyr Trp Ser Val Asp Pro  
 610 615 620

Leu Asp Arg Ala Met Ala Glu Leu Ala Ala  
 625 630

&lt;210&gt; 1066

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1066

Arg Ala Arg Gly Arg Cys Arg Arg Ser Pro Asp Gly Val Gly Ile Glu  
 1 5 10 15

Ala Pro Arg Lys Lys Val Lys Tyr Gln Glu Ile Gln Val Glu Glu Pro  
 20 25 30

Tyr Tyr Asp Cys His Glu Cys Thr Glu Thr Phe Thr Ser Ser Thr Ala  
 35 40 45

Phe Ser Glu His Leu Lys Thr His Ala Ser Met Ile Ile Phe Glu Pro  
 50 55 60

Ala Asn Ala Phe Gly Glu Cys Ser Gly Tyr Ile Glu Arg Ala Ser Thr  
 65 70 75 80

Ser Thr Gly Gly Ala Asn Gln Ala Asp Glu Lys Tyr Phe Lys Cys Asp  
 85 90 95

Val Cys Gly Gln Leu Phe Asn Asp Arg Leu Ser Leu Ala Arg His Gln  
 100 105 110

Asn Thr His Thr Gly  
 115

&lt;210&gt; 1067

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1067

Pro Glu Gln Arg Gly Ser Ser Met Ala His Gly Pro Gly Ala Leu Met  
 1 5 10 15

Leu Lys Cys Val Val Val Gly Asp Gly Ala Val Gly Lys Thr Cys Leu  
 20 25 30

1055

Leu Met Ser Tyr Ala Asn Asp Ala Phe Pro Glu Ser Thr Cys Pro Pro  
35 40 45

Ser Ser Thr Thr Thr Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser  
50 55 60

Tyr	Pro	Met	Thr	Asp	Val	Phe	Leu	Ile	Cys	Phe	Ser	Val	Val	Asn	Pro
65					70					75					80

Ala Ser Phe Gln Asn Val Lys Glu Glu Trp Val Pro Glu Leu Lys Glu  
85 90 95

Tyr Ala Pro Asn Val Pro Phe Leu Leu Ile Gly Thr Gln Ile Asp Leu  
100 105 110

Arg Asp Asp Pro Lys Thr Leu Ala Arg Leu Asn Asp Met Lys Glu Lys  
115 120 125

Pro Ile Cys Val Glu Gln Gly Gln Lys Leu Ala Lys Glu Ile Gly Ala  
130 135 140

Cys Cys Tyr Val Glu Cys Ser Ala Leu Thr Gln Lys Gly Leu Lys Thr  
145 150 155 160

Val Phe Asp Glu Ala Ile Ile Ala Ile Leu Thr Pro Lys Lys His Thr  
165 170 175

Val Lys Lys Arg Ile Gly Ser Arg Cys Ile Asn Cys Cys Leu Ile Thr  
180 185 190

<210> 1068

<211> 360

<212> PRT

<213> Homo sapiens

<400> 1068

Ser Arg Trp Ala Arg Arg Asp Pro Gln Glu Arg Arg Glu Arg Gly Thr  
1 5 10 15

Arg Val Gln Ser Ser Gly Thr Trp Ile Gly Ala Gly Ala Met Gly Gly  
20 25 30

Glu Gln Glu Glu Glu Arg Phe Asp Gly Met Leu Leu Ala Met Ala Gln  
35 40 45

1056

Gln His Glu Gly Gly Val Gln Glu Leu Val Asn Thr Phe Phe Ser Phe  
 50 55 60  
 Leu Arg Arg Lys Thr Asp Phe Phe Ile Gly Gly Glu Glu Gly Met Ala  
 65 70 75 80  
 Glu Lys Leu Ile Thr Gln Thr Phe Ser His His Asn Gln Leu Ala Gln  
 85 90 95  
 Lys Thr Arg Arg Glu Lys Arg Ala Arg Gln Glu Ala Glu Arg Arg Glu  
 100 105 110  
 Lys Ala Glu Arg Ala Ala Arg Leu Ala Lys Glu Ala Lys Ser Glu Thr  
 115 120 125  
 Ser Gly Pro Gln Ile Lys Glu Leu Thr Asp Glu Glu Ala Glu Arg Leu  
 130 135 140  
 Gln Leu Glu Ile Asp Gln Lys Lys Asp Ala Glu Asn His Glu Ala Gln  
 145 150 155 160  
 Leu Lys Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp Thr Glu Glu  
 165 170 175  
 Asp Glu Glu Glu Asp Glu Lys Asp Lys Gly Lys Leu Lys Pro Asn Leu  
 180 185 190  
 Gly Asn Gly Ala Asp Leu Pro Asn Tyr Arg Trp Thr Gln Thr Leu Ser  
 195 200 205  
 Glu Leu Asp Leu Ala Val Pro Phe Cys Val Asn Phe Arg Leu Lys Gly  
 210 215 220  
 Lys Asp Met Val Val Asp Ile Gln Arg Arg His Leu Arg Val Gly Leu  
 225 230 235 240  
 Lys Gly Gln Pro Ala Ile Ile Asp Gly Glu Leu Tyr Asn Glu Val Lys  
 245 250 255  
 Val Glu Glu Ser Ser Trp Leu Ile Glu Asp Gly Lys Val Val Thr Val  
 260 265 270  
 His Leu Glu Lys Ile Asn Lys Met Glu Trp Trp Ser Arg Leu Val Ser  
 275 280 285  
 Ser Asp Pro Glu Ile Asn Thr Lys Lys Ile Asn Pro Glu Asn Ser Lys  
 290 295 300  
 Leu Ser Asp Leu Asp Ser Glu Thr Arg Ser Met Val Glu Lys Met Met  
 305 310 315 320

1057

Tyr Asp Gln Arg Gln Lys Ser Met Gly Leu Pro Thr Ser Asp Glu Gln  
325 330 335

Lys Lys Gln Glu Ile Leu Lys Lys Phe Met Asp Gln His Pro Glu Met  
340 345 350

Asp Phe Ser Lys Ala Lys Phe Asn  
355 360

<210> 1069

<211> 174

<212> PRT

<213> Homo sapiens

**<220>**

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1069

Val	Trp	Leu	Ser	Trp	Asp	Gln	Glu	Lys	Ile	Pro	Val	Leu	Asp	Gln	Glu
1				5					10					15	
Ala	Ala	Asp	Gly	Ser	Ser	Thr	Leu	Gly	Gly	Gly	Ala	Gly	Thr	Met	Gly
			20					25					30		
Leu	Ser	Ala	Arg	Tyr	Gly	Pro	Gln	Phe	Thr	Leu	Gln	His	Val	Pro	Asp
		35					40					45			
Tyr	Arg	Gln	Xaa	Val	Tyr	Ile	Pro	Gly	Ser	Asn	Ala	Thr	Leu	Thr	Asn
	50					55					60				
Ala	Ala	Gly	Lys	Arg	Gly	Trp	Gln	Gly	Pro	Ser	Arg	Trp	Gln	Trp	Gln
65					70					75					80
Gln	Glu	Glu	Val	Gly	Gln	Glu	Gly	Glu	Glu	Val	Thr	Trp	Arg	Pro	Gly
				85					90					95	
Gln	Glu	Pro	Gln	Gly	Gly	Leu	Ser	Pro	Thr	Ser	Pro	Ala	Ser	Pro	Tyr
			100					105					110		
Leu	His	Pro	Gly	Leu	Arg	Val	Ser	Gly	Leu	Thr	Pro	Arg	Ile	Leu	Val
		115					120					125			
Gly	Ala	Lys	Ala	Met	Leu	Pro	Leu	Gly	Asn	Arg	Asn	Lys	Cys	Pro	Val
	130					135					140				
Ser	Thr	Tyr	Pro	Phe	Pro	Pro	Arg	Gly	Leu	Asn	Met	Gln	Lys	Gln	Phe
145					150					155					160

1058

Arg Trp Glu Pro Pro Ser Asn Gln Leu Leu Tyr Pro Trp Gly  
                   165                  170

&lt;210&gt; 1070

&lt;211&gt; 445

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1070

Pro Arg Gly Leu Thr Gly Leu Trp Arg Ser Ser Leu Pro Ile Arg Lys  
   1                  5                  10                  15

Leu Gln Leu Pro Pro Asp Ala Leu Lys Met Ala Thr Ser Leu Gly Ser  
                   20                  25                  30

Asn Thr Tyr Asn Arg Gln Asn Trp Glu Asp Ala Asp Phe Pro Ile Leu  
                   35                  40                  45

Cys Gln Thr Cys Leu Gly Glu Asn Pro Tyr Ile Arg Met Thr Lys Glu  
                   50                  55                  60

Lys Tyr Gly Lys Glu Cys Lys Ile Cys Ala Arg Pro Phe Thr Val Phe  
   65                  70                  75                  80

Arg Trp Cys Pro Gly Val Arg Met Arg Phe Lys Lys Thr Glu Val Cys  
                   85                  90                  95

Gln Thr Cys Ser Lys Leu Lys Asn Val Cys Gln Thr Cys Leu Leu Asp  
                   100                  105                  110

Leu Glu Tyr Gly Leu Pro Ile Gln Val Arg Asp Ala Gly Leu Ser Phe  
                   115                  120                  125

Lys Asp Asp Met Pro Lys Ser Asp Val Asn Lys Glu Tyr Tyr Thr Gln  
                   130                  135                  140

Asn Met Glu Arg Glu Ile Ser Asn Ser Asp Gly Thr Arg Pro Val Gly  
   145                  150                  155                  160

Met Leu Gly Lys Ala Thr Ser Thr Ser Asp Met Leu Leu Lys Leu Ala  
                   165                  170                  175

Arg Thr Thr Pro Tyr Tyr Lys Arg Asn Arg Pro His Ile Cys Ser Phe  
                   180                  185                  190

Trp Val Lys Gly Glu Cys Lys Arg Gly Glu Glu Cys Pro Tyr Arg His  
                   195                  200                  205

1059

Glu Lys Pro Thr Asp Pro Asp Asp Pro Leu Ala Asp Gln Asn Ile Lys  
 210 215 220  
 Asp Arg Tyr Tyr Gly Ile Asn Asp Pro Val Ala Asp Lys Leu Leu Lys  
 225 230 235 240  
 Arg Ala Ser Thr Met Pro Arg Leu Asp Pro Pro Glu Asp Lys Thr Ile  
 245 250 255  
 Thr Thr Leu Tyr Val Gly Gly Leu Gly Asp Thr Ile Thr Glu Thr Asp  
 260 265 270  
 Leu Arg Asn His Phe Tyr Gln Phe Gly Glu Ile Arg Thr Ile Thr Val  
 275 280 285  
 Val Gln Arg Gln Gln Cys Ala Phe Ile Gln Phe Ala Thr Arg Gln Ala  
 290 295 300  
 Ala Glu Val Ala Ala Glu Lys Ser Phe Asn Lys Leu Ile Val Asn Gly  
 305 310 315 320  
 Arg Arg Leu Asn Val Lys Trp Gly Arg Ser Gln Ala Ala Arg Gly Lys  
 325 330 335  
 Glu Lys Glu Lys Asp Gly Thr Thr Asp Ser Gly Ile Lys Leu Glu Pro  
 340 345 350  
 Val Pro Gly Leu Pro Gly Ala Leu Pro Pro Pro Pro Ala Ala Glu Glu  
 355 360 365  
 Glu Ala Ser Ala Asn Tyr Phe Asn Leu Pro Pro Ser Gly Pro Pro Ala  
 370 375 380  
 Val Val Asn Ile Ala Leu Pro Pro Pro Pro Gly Ile Ala Pro Pro Pro  
 385 390 395 400  
 Pro Pro Gly Phe Gly Pro His Met Phe His Pro Met Gly Pro Pro Pro  
 405 410 415  
 Pro Phe Met Arg Ala Pro Gly Pro Ile His Tyr Pro Ser Gln Asp Pro  
 420 425 430  
 Gln Arg Met Gly Ala His Ala Gly Lys His Ser Ser Pro  
 435 440 445

&lt;210&gt; 1071

&lt;211&gt; 346

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1060

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (286)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (287)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (291)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (294)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1071

Trp	Ser	Arg	Leu	Cys	Leu	Leu	Lys	Gln	Tyr	Leu	Phe	Thr	Met	Lys	Leu
1				5					10					15	

Gln	Ser	Pro	Glu	Phe	Gln	Ser	Leu	Phe	Thr	Glu	Gly	Leu	Lys	Ser	Leu
			20					25					30		

Thr	Glu	Leu	Phe	Val	Lys	Glu	Asn	His	Glu	Leu	Arg	Ile	Ala	Gly	Gly
		35					40					45			

Ala	Val	Arg	Asp	Leu	Leu	Asn	Gly	Val	Lys	Pro	Gln	Asp	Ile	Asp	Phe
	50					55					60				

Ala	Thr	Thr	Ala	Thr	Pro	Thr	Gln	Met	Lys	Glu	Met	Phe	Gln	Ser	Ala
65					70					75					80

Gly	Ile	Arg	Met	Ile	Asn	Asn	Arg	Gly	Glu	Lys	His	Gly	Thr	Ile	Thr
			85						90					95	

Ala	Arg	Leu	His	Glu	Glu	Asn	Phe	Glu	Ile	Thr	Thr	Leu	Arg	Ile	Asp
		100					105						110		

Val	Thr	Thr	Asp	Gly	Arg	His	Ala	Glu	Val	Glu	Phe	Thr	Thr	Asp	Trp
		115					120					125			

Gln	Lys	Asp	Ala	Glu	Arg	Arg	Asp	Leu	Thr	Ile	Asn	Ser	Met	Phe	Leu
	130						135				140				

Gly	Phe	Asp	Gly	Thr	Leu	Phe	Asp	Tyr	Phe	Asn	Gly	Tyr	Glu	Asp	Leu
145					150					155					160



1061

Lys Asn Lys Lys Val Arg Phe Val Gly His Ala Lys Gln Arg Ile Gln  
                           165                          170                          175  
 Glu Asp Tyr Leu Arg Ile Leu Arg Tyr Phe Arg Phe Tyr Gly Arg Ile  
                           180                          185                          190  
 Val Asp Lys Pro Gly Asp His Asp Pro Glu Thr Leu Glu Ala Ile Ala  
                           195                          200                          205  
 Glu Asn Ala Lys Gly Leu Ala Gly Ile Ser Gly Glu Arg Ile Trp Val  
                           210                          215                          220  
 Glu Leu Lys Lys Ile Leu Val Gly Asn His Val Asn His Leu Ile His  
                           225                          230                          235                          240  
 Leu Ile Tyr Asp Leu Asp Val Ala Pro Tyr Ile Gly Leu Pro Ala Asn  
                           245                          250                          255  
 Ala Ser Leu Glu Glu Phe Asp Lys Val Ser Lys Asn Val Asp Gly Phe  
                           260                          265                          270  
 Ser Pro Lys Pro Val Thr Leu Leu Ala Ser Leu Phe Lys Xaa Xaa Asp  
                           275                          280                          285  
 Asp Val Xaa Lys Leu Xaa Leu Arg Leu Lys Ile Ala Lys Glu Glu Lys  
                           290                          295                          300  
 Asn Leu Gly Leu Phe Ile Val Lys Asn Arg Lys Asp Leu Ile Lys Ala  
                           305                          310                          315                          320  
 Thr Asp Ser Ser Asp Pro Leu Lys Pro Tyr Gln Asp Phe Ile Ile Asp  
                           325                          330                          335  
 Ser Arg Glu Pro Asp Ala His Ser Cys Met  
                           340                          345

&lt;210&gt; 1072

&lt;211&gt; 404

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1062

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1072

Glu Asp Ser Leu Asn Leu Asp Leu Thr Pro Arg Met Leu Arg Arg Leu  
 1 5 10 15

Leu Glu Arg Pro Cys Thr Leu Ala Leu Leu Val Gly Ser Gln Leu Ala  
 20 25 30

Val Met Met Tyr Leu Ser Leu Gly Gly Phe Arg Ser Leu Ser Ala Leu  
 35 40 45

Phe Gly Arg Asp Gln Gly Pro Thr Phe Asp Tyr Ser His Pro Arg Asp  
 50 55 60

Val Tyr Ser Asn Leu Ser His Leu Pro Gly Ala Pro Xaa Gly Pro Pro  
 65 70 75 80

Xaa Pro Gln Gly Leu Pro Tyr Cys Pro Glu Arg Ser Pro Leu Leu Val  
 85 90 95

Gly Pro Val Ser Val Ser Phe Ser Pro Val Pro Ser Leu Ala Glu Ile  
 100 105 110

Val Glu Arg Asn Pro Arg Val Glu Pro Gly Gly Arg Tyr Arg Pro Ala  
 115 120 125

Gly Cys Glu Pro Arg Ser Arg Thr Ala Ile Ile Val Pro His Arg Ala  
 130 135 140

Arg Glu His His Leu Arg Leu Leu Leu Tyr His Leu His Pro Phe Leu  
 145 150 155 160

Gln Arg Gln Gln Leu Ala Tyr Gly Ile Tyr Val Ile His Gln Ala Gly  
 165 170 175

Asn Gly Thr Phe Asn Arg Ala Lys Leu Leu Asn Val Gly Val Arg Glu  
 180 185 190

Ala Leu Arg Asp Glu Glu Trp Asp Cys Leu Phe Leu His Asp Val Asp  
 195 200 205

Leu Leu Pro Glu Asn Asp His Asn Leu Tyr Val Cys Asp Pro Arg Gly  
 210 215 220

Pro Arg His Val Ala Val Ala Met Asn Lys Phe Gly Tyr Ser Leu Pro  
 225 230 235 240

Tyr Pro Gln Tyr Phe Gly Gly Val Ser Ala Leu Thr Pro Asp Gln Tyr  
 245 250 255

1063

Leu Lys Met Asn Gly Phe Pro Asn Glu Tyr Trp Gly Trp Gly Gly Glu  
                   260                  265                  270  
 Asp Asp Asp Ile Ala Thr Arg Val Arg Leu Ala Gly Met Lys Ile Ser  
                   275                  280                  285  
 Arg Pro Pro Thr Ser Val Gly His Tyr Lys Met Val Lys His Arg Gly  
                   290                  295                  300  
 Asp Lys Gly Asn Glu Glu Asn Pro His Arg Phe Asp Leu Leu Val Arg  
                   305                  310                  315                  320  
 Thr Gln Asn Ser Trp Thr Gln Asp Gly Met Asn Ser Leu Thr Tyr Gln  
                   325                  330                  335  
 Leu Leu Ala Arg Glu Leu Gly Pro Leu Tyr Thr Asn Ile Thr Ala Asp  
                   340                  345                  350  
 Ile Gly Thr Asp Pro Arg Gly Pro Arg Ala Pro Ser Gly Pro Arg Tyr  
                   355                  360                  365  
 Pro Pro Gly Ser Ser Gln Ala Phe Arg Gln Glu Met Leu Gln Arg Arg  
                   370                  375                  380  
 Pro Pro Ala Arg Pro Gly Pro Leu Ser Thr Ala Asn His Thr Ala Leu  
                   385                  390                  395                  400  
 Arg Gly Ser His

&lt;210&gt; 1073

&lt;211&gt; 217

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1073

Asn Lys Glu Gln Leu Met Asp Lys Ser Gly Ile Asp Ser Leu Asp His  
           1                  5                  10                  15

Val Thr Ser Asp Ala Val Glu Leu Ala Asn Arg Ser Asp Asn Ser Ser  
           20                  25                  30

Asp Ser Ser Leu Phe Lys Thr Gln Cys Ile Pro Tyr Ser Pro Lys Gly

1064

35	40	45
Glu Lys Arg Asn Pro Ile Arg Lys Phe Val Arg Thr Pro Glu Ser Val		
50	55	60
His Ala Ser Xaa Ser Ser Ser Asp Ser Ser Phe Glu Pro Ile Pro Leu		
65	70	75
Thr Ile Lys Ala Ile Phe Glu Arg Phe Lys Asn Arg Lys Lys Arg Tyr		
85	90	95
Lys Lys Lys Lys Lys Arg Arg Tyr Gln Pro Thr Gly Arg Pro Arg Gly		
100	105	110
Arg Pro Glu Gly Arg Arg Asn Pro Ile Tyr Ser Leu Ile Asp Lys Lys		
115	120	125
Lys Gln Phe Arg Ser Arg Gly Ser Gly Phe Pro Phe Leu Glu Ser Glu		
130	135	140
Asn Glu Lys Asn Ala Pro Trp Arg Lys Ile Leu Thr Phe Glu Gln Ala		
145	150	155
Val Ala Arg Gly Phe Phe Asn Tyr Ile Glu Lys Leu Lys Tyr Glu His		
165	170	175
His Leu Lys Glu Ser Leu Lys Gln Met Asn Val Gly Glu Asp Leu Glu		
180	185	190
Asn Glu Asp Phe Asp Ser Arg Arg Tyr Lys Phe Leu Asp Asp Asp Gly		
195	200	205
Ser Ile Ser Pro Ile Glu Glu Ser Thr		
210	215	

&lt;210&gt; 1074

&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1065

<220>  
 <221> SITE  
 <222> (123)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (125)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (128)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (147)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1074

Thr His Tyr Arg Ala Lys Leu Val Arg Leu Pro Gly Thr Gly Ser Gly  
 1 5 10 15

Asn Ser Arg Val Asp Pro Arg Val Arg Glu Gln Pro Ser Pro Ala Ser  
 20 25 30

Ser Ala Pro Gly Gln Leu Asn Ser Cys Gln Asp Val Leu Pro Ala Glu  
 35 40 45

Pro Ala Ala Val Pro Thr Pro Thr Gln Val Ser Leu Thr Gln Val Ser  
 50 55 60

Pro Lys Glu Pro Ser Thr Val Ser Ala Ser Ser Phe Leu Trp Leu Cys  
 65 70 75 80

Pro Lys Leu Trp Gly Leu Trp Pro Ser Ser Glu Gly Gly Cys Phe Leu  
 85 90 95

Asn His His Arg Arg His His Arg Cys Arg Arg Gln Arg Xaa Asn Ser  
 100 105 110

Cys Asp Arg Ala Val Val Ser Lys Ala Xaa Xaa Leu Xaa Ala Ala Xaa  
 115 120 125

Phe Trp Gly Leu Leu Leu Ile Gln Ile Leu Met Leu Arg Gln Ala Ile  
 130 135 140

Phe Gly Xaa Asn Lys Asn Ser Gln Glu Ala Lys Asn Ser Pro Ile Trp  
 145 150 155 160

1066

Lys

&lt;210&gt; 1075

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1075

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Ser Ser Ser Trp His Ala Arg Tyr Thr Val Leu Thr Tyr Leu Gln Thr
  1              5              10              15

Met Val Phe Tyr Asn Leu Phe Ile Phe Leu Asn Asn Glu Asp Ala Val
      20              25              30

Lys Asp Ile Arg Trp Leu Val Ile Ser Leu Leu Glu Asp Glu Gln Leu
      35              40              45

Glu Val Arg Glu Met Ala Ala Thr Thr Leu Ser Gly Leu Leu Gln Cys
      50              55              60

Asn Phe Leu Thr Met Asp Ser Pro Met Gln Ile His Phe Glu Gln Leu
      65              70              75              80

Cys Lys Thr Lys Leu Pro Lys Lys Arg Lys Arg Asp Pro Gly Ser Val
      85              90              95

Gly Asp Thr Ile Pro Ser Ala Glu Leu Val Lys Arg His Ala Gly Val
      100              105              110

Leu Gly Leu Gly Ala Cys Val Leu Ser Ser Pro Tyr Asp Val Pro Thr
      115              120              125

Trp Met Pro Gln Leu Leu Met Asn Leu Ser Ala His Leu Asn Asp Pro
      130              135              140

Gln Pro Ile Glu Met Thr Val Lys Lys Thr Leu Ser Asn Phe Arg Arg
      145              150              155              160

Leu Thr Met Thr Thr Gly Arg Asn Ile Asn Ser Asn Ser Leu Met Thr
      165              170              175

Asn Cys Leu Phe Ser Pro Ile Phe Leu Cys His His Ala Ile Met His
      180              185              190

Arg Lys Met Thr Ser Pro His Phe Arg Leu Phe Ser Ser Lys Ile Pro
      195              200              205

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1067

His Pro Gln Val Pro Ser Val Val Ala Leu Cys Lys Phe  
 210 215 220

&lt;210&gt; 1076

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (163)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1076

Ala Arg Gly Ala Arg Val Arg Ala Cys Ala Ser Leu Gly Ser Trp Arg  
 1 5 10 15

Gly Pro Arg Gly Glu Gly Trp Lys Met Ser Met Asp Val Thr Phe Leu  
 20 25 30

Gly Thr Gly Ala Ala Tyr Pro Ser Pro Thr Arg Gly Ala Ser Ala Val  
 35 40 45

Val Leu Arg Cys Glu Gly Glu Xaa Trp Leu Phe Asp Cys Gly Glu Gly  
 50 55 60

Thr Gln Thr Gln Leu Met Lys Ser Gln Leu Lys Ala Gly Arg Ile Thr  
 65 70 75 80

Lys Ile Phe Ile Thr His Leu His Gly Asp His Phe Phe Gly Leu Pro  
 85 90 95

Gly Leu Leu Cys Thr Ile Ser Leu Gln Ser Gly Ser Met Val Ser Lys  
 100 105 110

1068

Gln Pro Ile Glu Ile Tyr Gly Pro Val Gly Phe Gly Thr Leu Ser Gly  
 115 120 125

Glu Pro Trp Asn Ser Leu Xaa Arg Glu Leu Val Phe His Tyr Val Val  
 130 135 140

His Glu Leu Val Pro Thr Ala Asp Gln Cys Pro Ala Glu Gly Thr Lys  
 145 150 155 160

Arg Ile Xaa Ala Cys Xaa  
 165

<210> 1077

<211> 239

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1077

Gly Leu Arg Ala Leu Ser Gln His Thr Asp Leu Ser Pro Leu Ser Pro  
 1 5 10 15

Lys Thr Pro Ala Pro Ser Met Arg Xaa Lys Met Gly Asn Gly Thr Glu  
 20 25 30

Glu Asp Tyr Asn Phe Val Phe Lys Val Val Leu Ile Gly Glu Ser Gly  
 35 40 45

Val Gly Lys Thr Asn Leu Leu Ser Arg Phe Thr Arg Asn Glu Phe Ser  
 50 55 60

His Asp Ser Arg Thr Thr Ile Gly Val Glu Phe Ser Thr Arg Thr Val  
 65 70 75 80

Met Leu Gly Thr Ala Ala Val Lys Ala Gln Ile Trp Asp Thr Ala Gly  
 85 90 95

Leu Glu Arg Tyr Arg Ala Ile Thr Ser Ala Tyr Tyr Arg Gly Ala Val  
 100 105 110

Gly Ala Leu Leu Val Phe Asp Leu Thr Lys His Gln Thr Tyr Ala Val  
 115 120 125

Val Glu Arg Trp Leu Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile



1069

130	135	140
Val Val Met Leu Val Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu		
145	150	155 160
Val Pro Thr Glu Glu Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu		
165	170	175
Phe Leu Glu Thr Ser Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe		
180	185	190
Glu Thr Val Leu Lys Glu Ile Phe Ala Lys Val Ser Lys Gln Arg Gln		
195	200	205
Asn Ser Ile Arg Thr Asn Ala Ile Thr Ser Gly Ser Ala Gln Ala Gly		
210	215	220
Gln Glu Pro Gly Pro Gly Glu Lys Arg Ala Cys Cys Ile Ser Leu		
225	230	235

&lt;210&gt; 1078

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1078

Ile Leu Lys Gly Ser Ser Gly Ser Val Trp Leu Arg Asn Leu Gln Leu		
1	5	10 15
Gly Leu Phe Gly Thr Ala Leu Gly Leu Val Gly Leu Trp Trp Ala Glu		
20	25	30
Gly Thr Ala Val Ala Thr Arg Gly Phe Phe Phe Gly Tyr Thr Pro Ala		
35	40	45
Val Trp Gly Val Val Leu Asn Gln Ala Phe Gly Gly Leu Leu Val Ala		
50	55	60
Val Val Val Lys Tyr Ala Asp Asn Ile Leu Lys Gly Phe Ala Thr Ser		
65	70	75 80
Leu Ser Ile Val Leu Ser Thr Val Ala Ser Ile Arg Leu Phe Gly Phe		
85	90	95

1070

His Val Asp Pro Leu Phe Ala Leu Gly Ala Gly Leu Val Ile Gly Ala  
                   100                  105                  110  
 Val Tyr Leu Tyr Ser Leu Pro Arg Gly Ala Xaa Lys Ala Ile Ala Ser  
                   115                  120                  125  
 Ala Ser Ala Ser Ala Ser Gly Pro Cys Val His Gln Gln Pro Pro Gly  
                   130                  135                  140  
 Gln Pro Pro Pro Pro Gln Leu Ser Ser His Arg Gly Asp Leu Ile Thr  
                   145                  150                  155                  160  
 Glu Pro Phe Leu Pro Lys Ser Val Leu Val Lys  
                   165                  170

&lt;210&gt; 1079

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1079

Arg Arg Val Cys His Ser Ser Pro His Leu Ser Ser Pro Arg Ala Ala  
           1                  5                  10                  15  
 Cys Glu Gln Gln Ala Val Ala Leu Thr Leu Gln Glu Asp Arg Ala Ser  
                   20                  25                  30  
 Leu Thr Leu Ser Gly Gly Pro Ser Ala Leu Ala Phe Asp Leu Ser Lys  
                   35                  40                  45  
 Val Pro Gly Pro Glu Ala Ala Pro Arg Leu Xaa Ala Leu Thr Leu Gly  
           50                  55                  60  
 Leu Ala Lys Arg Val Trp Ser Leu Glu Arg Arg Leu Ala Ala Ala Glu  
           65                  70                  75                  80  
 Glu Thr Ala Val Ser Pro Arg Lys Ser Pro Arg Pro Ala Gly Pro Gln  
                   85                  90                  95  
 Leu Phe Leu Pro Asp Pro Asp Pro Gln Arg Gly Gly Pro Gly Pro Gly  
                   100                  105                  110  
 Val Arg Arg Arg Cys Pro Gly Glu Ser Leu Ile Asn Pro Gly Phe Lys  
                   115                  120                  125

1071

Ser Lys Lys Pro Ala Gly Gly Val Asp Phe Asp Glu Thr  
 130 135 140

&lt;210&gt; 1080

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1080

Ala Val Glu Ser Arg Xaa Pro Gly Trp Asn His His Gly Ile Gln Phe  
 1 5 10 15

Pro Cys Gly Ser Val Trp Leu Glu His Ala Ile Ala Met Ile Cys Gly  
 20 25 30

Asn Val Cys Leu Trp Lys Gly Ala Pro Thr Thr Ser Leu Ile Ser Val  
 35 40 45

Ala Val Thr Lys Ile Ile Ala Lys Val Leu Glu Asp Asn Lys Leu Pro  
 50 55 60

Gly Ala Ile Cys Ser Leu Thr Cys Gly Gly Ala Asp Ile Gly Thr Ala  
 65 70 75 80

Met Ala Lys Asp Glu Arg Val Asn Leu Leu Ser Phe Thr Gly Ser Thr  
 85 90 95

Gln Val Gly Lys Gln Val Gly Leu Met Val Gln Glu Arg Phe Gly Arg  
 100 105 110

Ser Leu Leu Glu Leu Gly Gly Asn Asn Ala Ile Ile Ala Phe Glu Asp  
 115 120 125

Ala Asp Leu Ser Leu Val Val Pro Ser Ala Leu Phe Ala Ala Val Gly  
 130 135 140

Thr Ala Gly Gln Arg Cys Thr Thr Ala Arg Arg Leu Phe Ile His Glu  
 145 150 155 160

Ser Ile His Asp Glu Val Val Asn Arg Leu Lys Lys Ala Tyr Ala Gln  
 165 170 175

Ile Arg Val Gly Asn Pro Trp Asp Pro Asn Val Leu Tyr Gly Pro Leu

1072

180	185	190
His Thr Lys Gln Ala Val Ser Met Phe Leu Gly Ala Val Glu Glu Ala		
195	200	205
Lys Lys Glu Gly Gly Thr Val Val Tyr Gly Gly Lys Val Met Asp Arg		
210	215	220
Pro Gly Asn Tyr Val Glu Pro Thr Ile Val Thr Gly Leu Gly His Asp		
225	230	235 240
Ala Ser Ile Ala His Thr Glu Thr Phe Ala Pro Ile Leu Tyr Val Phe		
245	250	255
Lys Phe Lys Asn Glu Glu Glu Val Phe Ala Trp Asn Asn Glu Val Lys		
260	265	270
Gln Gly Leu Ser Ser Ser Ile Phe Thr Lys Asp Leu Gly Arg Ile Phe		
275	280	285
Arg Trp Leu Gly Pro Lys Gly Ser Asp Cys Gly Ile Val Asn Val Asn		
290	295	300
Ile Pro Thr Ser Gly Ala Glu Ile Gly Gly Ala Phe Gly Gly Glu Lys		
305	310	315 320
His Thr Gly Gly Gly Arg Glu Ser Gly Ser Asp Ala Trp Lys Gln Tyr		
325	330	335
Met Arg Arg Ser Thr Cys Thr Ile Asn Tyr Ser Lys Asp Leu Pro Leu		
340	345	350
Ala Gln Gly Ile Lys Phe Gln		
355		

&lt;210&gt; 1081

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1081

Ala Val Pro Leu Leu Gly Arg Pro Thr Arg Pro Val Gly Pro Arg Ala		
1	5	10 15
Ala Leu Thr Met Thr Gln Gln Gly Ala Ala Leu Gln Asn Tyr Asn Asn		
20	25	30
Glu Leu Val Lys Cys Ile Glu Glu Leu Cys Gln Lys Arg Glu Glu Leu		
35	40	45

1073

Cys Arg Gln Ile Gln Glu Glu Glu Asp Glu Lys Gln Arg Leu Gln Asn  
 50 55 60  
 Glu Val Arg Gln Leu Thr Glu Lys Leu Ala Arg Val Asn Glu Asn Leu  
 65 70 75 80  
 Ala Arg Lys Ile Ala Ser Arg Asn Glu Phe Asp Arg Thr Ile Ala Glu  
 85 90 95  
 Thr Glu Ala Ala Tyr Leu Lys Ile Leu Glu Ser Ser Gln Thr Leu Leu  
 100 105 110  
 Ser Val Leu Lys Arg Glu Ala Gly Asn Leu Thr Lys Ala Thr Ala Pro  
 115 120 125  
 Asp Gln Lys Ser Ser Gly Gly Arg Asp Ser  
 130 135

&lt;210&gt; 1082

&lt;211&gt; 339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1082

Ser Pro Ile Ser Asn Cys Glu Ile Thr Ile Thr Asp Pro Gly Lys Phe  
 1 5 10 15  
 Tyr Asn Ser Asn Ser Val Phe Ser Arg Gly Asn Met Ala Lys Val Phe  
 20 25 30  
 Ser Phe Ile Leu Val Thr Thr Ala Leu Xaa Met Gly Arg Glu Ile Ser  
 35 40 45  
 Ala Leu Glu Asp Cys Ala Gln Glu Gln Met Arg Leu Arg Ala Gln Val  
 50 55 60  
 Arg Leu Leu Glu Thr Arg Val Lys Gln Gln Gln Val Lys Ile Lys Gln  
 65 70 75 80  
 Leu Leu Gln Glu Asn Glu Val Gln Phe Leu Asp Lys Gly Asp Glu Asn  
 85 90 95  
 Thr Val Val Asp Leu Gly Ser Lys Arg Gln Tyr Ala Asp Cys Ser Glu

1074

100	105	110
Ile Phe Asn Asp Gly Tyr Lys	Leu Ser Gly Phe Tyr Lys	Ile Lys Pro
115	120	125
Leu Gln Ser Pro Ala Glu Phe Ser Val Tyr Cys Asp Met Ser Asp Gly		
130	135	140
Gly Gly Trp Thr Val Ile Gln Arg Arg Ser Asp Gly Ser Glu Asn Phe		
145	150	155 160
Asn Arg Gly Trp Lys Asp Tyr Glu Asn Gly Phe Gly Asn Phe Val Gln		
165	170	175
Lys His Gly Glu Tyr Trp Leu Gly Asn Lys Asn Leu His Phe Leu Thr		
180	185	190
Thr Gln Glu Asp Tyr Thr Leu Lys Ile Asp Leu Ala Asp Phe Glu Lys		
195	200	205
Asn Ser Arg Tyr Ala Gln Tyr Lys Asn Phe Lys Val Gly Asp Glu Lys		
210	215	220
Asn Phe Tyr Glu Leu Asn Ile Gly Glu Tyr Ser Gly Thr Ala Gly Asp		
225	230	235 240
Ser Leu Ala Gly Asn Phe His Pro Glu Val Gln Trp Trp Ala Ser His		
245	250	255
Gln Arg Met Lys Phe Ser Thr Trp Asp Arg Asp His Asp Asn Tyr Glu		
260	265	270
Gly Asn Cys Ala Glu Glu Asp Gln Ser Gly Trp Trp Phe Asn Arg Cys		
275	280	285
His Ser Ala Asn Leu Asn Gly Val Tyr Tyr Ser Gly Pro Tyr Thr Ala		
290	295	300
Lys Thr Asp Asn Gly Ile Val Trp Tyr Thr Trp His Gly Trp Trp Tyr		
305	310	315 320
Ser Leu Lys Ser Val Val Met Lys Ile Arg Pro Asn Asp Phe Ile Pro		
325	330	335
Asn Val Ile		

&lt;210&gt; 1083

&lt;211&gt; 256

1075

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1083

Lys Ser Leu Asn Gly Pro Ala Asp Phe Glu Lys Arg Val Glu Gly Gly  
 1 5 10 15

Gly Arg Pro Arg Ala Pro Leu Val Asn Ala Leu Leu Thr Ala Pro Glu  
 20 25 30

Phe Leu Ile Tyr Thr Gly Cys Met Val Cys Val Phe Leu Phe Cys Phe  
 35 40 45

Ser Pro Pro Ala Gly Leu Phe Xaa Gly Trp Gly Gly Gly Phe Ala Met  
 50 55 60

Ser Asp Asp Asp Ser Arg Ala Ser Thr Ser Ser Ser Ser Ser Ser Ser  
 65 70 75 80

Ser Asn Gln Gln Thr Glu Lys Glu Thr Asn Thr Pro Lys Lys Lys Glu  
 85 90 95

Ser Lys Val Ser Met Ser Lys Asn Ser Lys Leu Leu Ser Thr Ser Ala  
 100 105 110

Lys Arg Ile Gln Lys Glu Leu Ala Asp Ile Thr Leu Asp Pro Pro Pro  
 115 120 125

Asn Cys Ser Ala Gly Pro Lys Gly Asp Asn Ile Tyr Glu Trp Arg Ser  
 130 135 140

Thr Ile Leu Gly Pro Pro Gly Ser Val Tyr Glu Gly Gly Val Phe Phe  
 145 150 155 160

Leu Asp Ile Thr Phe Thr Pro Glu Tyr Pro Phe Lys Pro Pro Lys Val  
 165 170 175

Thr Phe Arg Thr Arg Ile Tyr His Cys Asn Ile Asn Ser Gln Gly Val  
 180 185 190

Ile Cys Leu Asp Ile Leu Lys Asp Asn Trp Ser Pro Ala Leu Thr Ile  
 195 200 205

Ser Lys Val Leu Leu Ser Ile Cys Ser Leu Leu Thr Asp Cys Asn Pro  
 210 215 220

1076

Ala Asp Pro Leu Val Gly Ser Ile Ala Thr Gln Tyr Met Thr Asn Arg  
 225 230 235 240

Ala Glu His Asp Arg Met Ala Arg Gln Trp Thr Lys Arg Tyr Ala Thr  
 245 250 255

<210> 1084

<211> 176

<212> PRT

<213> Homo sapiens

<400> 1084

Glu Lys Cys Val Ser Phe Ser Ala Val Leu Lys Ser Leu Ser Pro Val  
 1 5 10 15

Asp Pro Val Glu Pro Ile Ser Asn Ser Glu Pro Ser Met Asn Ser Asp  
 20 25 30

Met Gly Lys Val Ser Lys Asn Asp Thr Glu Glu Glu Ser Asn Lys Ser  
 35 40 45

Ala Thr Thr Asp Asn Glu Ile Ser Arg Thr Glu Tyr Leu Cys Glu Asn  
 50 55 60

Ser Leu Glu Gly Lys Asn Lys Asp Asn Ser Ser Asn Glu Val Phe Pro  
 65 70 75 80

Gln Gly Ala Glu Glu Arg Met Cys Tyr Gln Cys Glu Ser Glu Asp Glu  
 85 90 95

Pro Gln Ala Asp Gly Ser Gly Leu Thr Thr Ala Pro Pro Thr Pro Arg  
 100 105 110

Asp Ser Leu Gln Pro Ser Ile Lys Gln Arg Leu Ala Arg Leu Gln Leu  
 115 120 125

Ser Pro Asp Phe Thr Phe Thr Ala Gly Leu Ala Ala Glu Val Ala Ala  
 130 135 140

Arg Ser Leu Ser Phe Thr Thr Met Gln Glu Gln Thr Phe Gly Asp Glu  
 145 150 155 160

Glu Glu Glu Gln Ile Ile Glu Glu Asn Lys Asn Glu Ile Glu Glu Lys  
 165 170 175



1077

&lt;210&gt; 1085

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1085

His Arg Lys Ser Arg Pro Ala Asn His Cys Val Tyr Phe Tyr Gly Asp  
 1 5 10 15

Glu Ile Ser Phe Ser Cys His Glu Thr Ser Arg Phe Ser Ala Ile Cys  
 20 25 30

Gln Gly Asp Gly Thr Trp Ser Pro Arg Thr Pro Ser Cys Gly Asp Ile  
 35 40 45

Cys Asn Phe Pro Pro Lys Ile Ala His Gly His Tyr Lys Gln Ser Ser  
 50 55 60

Ser Tyr Ser Phe Phe Lys Glu Glu Ile Ile Tyr Glu Cys Asp Lys Gly  
 65 70 75 80

Tyr Ile Leu Val Gly Gln Ala Lys Leu Ser Cys Ser Tyr Ser His Trp  
 85 90 95

Ser Ala Pro Ala Pro Gln Cys Lys Ala Leu Cys Arg Lys Pro Glu Leu  
 100 105 110

Val Asn Gly Arg Leu Ser Val Asp Lys Asp Gln Tyr Val Glu Pro Glu  
 115 120 125

Asn Val Thr Ile Gln Cys Asp Ser Gly Tyr Gly Val Val Gly Pro Gln  
 130 135 140

Ser Ile Thr Cys Ser Gly Asn Arg Thr Trp Tyr Pro Glu Val Pro Lys  
 145 150 155 160

Cys Glu Trp Glu Thr Pro Glu Gly Cys Glu Gln Val Leu Thr Gly Lys  
 165 170 175

Arg Leu Met Gln Cys Leu Pro Asn Pro Glu Asp Val Lys Met Ala Leu  
 180 185 190

Glu Val Tyr Lys Leu Ser Leu Glu Ile Glu Gln Leu Glu Leu Gln Arg  
 195 200 205

Asp Ser Ala Arg Gln Ser Thr Leu Asp Lys Glu Leu  
 210 215 220

1078

&lt;210&gt; 1086

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1086

Val Lys Pro Ser Gly Gly Glu Gly Asp Val Ala Gln Arg Pro Arg Asp  
 1 5 10 15

Arg Leu Ser Ser Arg Leu Leu Gly Ser Pro Ala Trp Arg Arg Arg Leu  
 20 25 30

Met Thr Glu Gly Pro Leu Ala Gly Ala Pro Val Cys Ile Phe Glu Gly  
 35 40 45

Pro Gly Pro Pro Gly Gly Ala Gly Ser Tyr Ser Trp Gly Leu Gly Phe  
 50 55 60

Arg Arg Ala Gly Gly Gly Ala Gly Leu Lys Ala Ala Leu Val Tyr Gly  
 65 70 75 80

Val Val Thr Gln Ser His Trp Gln Arg Trp Gly Leu Ala Val Ala Trp  
 85 90 95

Gln Tyr Leu Gly Ile Ala Ser Thr Gly Asn Lys Asp Gly His Glu Gln  
 100 105 110

Ser Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 115 120 125

Lys Lys Lys Lys Lys  
 130

&lt;210&gt; 1087

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1087

Ile Leu Thr Tyr Lys Met Lys Gln Asp Ala Ser Arg Asn Ala Ala Tyr  
 1 5 10 15

Thr Val Asp Cys Glu Asp Tyr Val His Val Val Glu Phe Asn Pro Phe  
 20 25 30

Glu Asn Gly Asp Ser Gly Asn Leu Ile Ala Tyr Gly Gly Asn Asn Tyr

1079

35	40	45
Val Val Ile Gly Thr Cys Thr Phe Gln Glu Glu Glu Ala Asp Val Glu		
50	55	60
Gly Ile Gln Tyr Lys Thr Leu Arg Thr Phe His His Gly Val Arg Val		
65	70	75
Asp Gly Ile Ala Trp Ser Pro Glu Thr Arg Leu Asp Ser Leu Pro Pro		
85	90	95
Val Ile Lys Phe Cys Thr Ser Ala Ala Asp Met Lys Ile Arg Leu Phe		
100	105	110
Thr Ser Asp Leu Gln Asp Lys Asn Glu Tyr Lys Val Leu Glu Gly His		
115	120	125
Thr Asp Phe Ile Asn Gly Leu Val Phe Asp Pro Lys Glu Gly Gln Glu		
130	135	140
Ile Ala Ser Val Ser Asp Asp His Thr Cys Arg Ile Trp Asn Leu Glu		
145	150	155
Gly Val Gln Thr Ala His Phe Val Leu His Ser Pro Gly Met Ser Val		
165	170	175
Cys Trp His Pro Glu Glu Thr Phe Lys Leu Met Val Ala Glu Lys Asn		
180	185	190
Gly Thr Ile Arg Phe Tyr Asp Leu Leu Ala Gln Gln Ala Ile Leu Ser		
195	200	205
Leu Glu Ser Glu Gln Val Pro Leu Met Ser Ala His Trp Cys Leu Lys		
210	215	220
Asn Thr Phe Lys Val Gly Ala Val Ala Gly Asn Asp Trp Leu Ile Trp		
225	230	235
Asp Ile Thr Arg Ser Ser Tyr Pro Gln Asn Lys Arg Pro Val His Met		
245	250	255
Asp Arg Ala Cys Leu Phe Arg Trp Ser Thr Ile Ser Glu Asn Leu Phe		
260	265	270
Ala Thr Thr Gly Tyr Pro Gly Lys Met Gln Ala Ser Phe Lys Phe Ile		
275	280	285
Ile		

1080

&lt;210&gt; 1088

&lt;211&gt; 836

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (677)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1088

Pro Thr Arg Pro Asn Trp Thr Gly Met Thr Asn Leu Leu Asp Ile Pro  
 1 5 10 15

Gly Leu Ser Ser Leu Ser Asp Thr Met Ile Met Asp Ser Ile Ala Ala  
 20 25 30

Phe Leu Val Leu Pro Asn Arg Leu Leu Val Pro Leu Val Pro Asp Leu  
 35 40 45

Gln Asp Val Ala Gln Leu Arg Ser Pro Leu Pro Arg Gly Ile Ile Arg  
 50 55 60

Ile His Leu Leu Ala Ala Arg Gly Leu Ser Ser Lys Asp Lys Tyr Val  
 65 70 75 80

Lys Gly Leu Ile Glu Gly Lys Ser Asp Pro Tyr Ala Leu Val Arg Leu  
 85 90 95

Gly Thr Gln Thr Phe Cys Ser Arg Val Ile Asp Glu Glu Leu Asn Pro  
 100 105 110

Gln Trp Gly Glu Thr Tyr Glu Val Met Val His Glu Val Pro Gly Gln  
 115 120 125

Glu Ile Glu Val Glu Val Phe Asp Lys Asp Pro Asp Lys Asp Asp Phe  
 130 135 140

Leu Gly Arg Met Lys Leu Asp Val Gly Lys Val Leu Gln Ala Ser Val  
 145 150 155 160

Leu Asp Asp Trp Phe Pro Leu Gln Gly Gly Gln Gly Gln Val His Leu  
 165 170 175

Arg Leu Glu Trp Leu Ser Leu Leu Ser Asp Ala Glu Lys Leu Glu Gln  
 180 185 190

Val Leu Gln Trp Asn Trp Gly Val Ser Ser Arg Pro Asp Pro Pro Ser  
 195 200 205

1081

Ala Ala Ile Leu Val Val Tyr Leu Asp Arg Ala Gln Asp Leu Pro Leu  
 210 215 220

Lys Lys Gly Asn Lys Glu Pro Asn Pro Met Val Gln Leu Ser Ile Gln  
 225 230 235 240

Asp Val Thr Gln Glu Ser Lys Ala Val Tyr Ser Thr Asn Cys Pro Val  
 245 250 255

Trp Glu Glu Ala Phe Arg Phe Phe Leu Gln Asp Pro Gln Ser Gln Glu  
 260 265 270

Leu Asp Val Gln Val Lys Asp Asp Ser Arg Ala Leu Thr Leu Gly Ala  
 275 280 285

Leu Thr Leu Pro Leu Ala Arg Leu Leu Thr Ala Pro Glu Leu Ile Leu  
 290 295 300

Asp Gln Trp Phe Gln Leu Ser Ser Ser Gly Pro Asn Ser Arg Leu Tyr  
 305 310 315 320

Met Lys Leu Val Met Arg Ile Leu Tyr Leu Asp Ser Ser Glu Ile Cys  
 325 330 335

Phe Pro Thr Val Pro Gly Cys Pro Gly Ala Trp Asp Val Asp Ser Glu  
 340 345 350

Asn Pro Gln Arg Gly Ser Ser Val Asp Ala Pro Pro Arg Pro Cys His  
 355 360 365

Thr Thr Pro Asp Ser Gln Phe Gly Thr Glu His Val Leu Arg Ile His  
 370 375 380

Val Leu Glu Ala Gln Asp Leu Ile Ala Lys Asp Arg Phe Leu Gly Gly  
 385 390 395 400

Leu Val Lys Gly Lys Ser Asp Pro Tyr Val Lys Leu Lys Leu Ala Gly  
 405 410 415

Arg Ser Phe Arg Ser His Val Val Arg Glu Asp Leu Asn Pro Arg Trp  
 420 425 430

Asn Glu Val Phe Glu Val Ile Val Thr Ser Val Pro Gly Gln Glu Leu  
 435 440 445

Glu Val Glu Val Phe Asp Lys Asp Leu Asp Lys Asp Asp Phe Leu Gly  
 450 455 460

Arg Cys Lys Val Arg Leu Thr Thr Val Leu Asn Ser Gly Phe Leu Asp  
 465 470 475 480

1082

Glu Trp Leu Thr Leu Glu Asp Val Pro Ser Gly Arg Leu His Leu Arg  
 485 490 495  
 Leu Glu Arg Leu Thr Pro Arg Pro Thr Ala Ala Glu Leu Glu Glu Val  
 500 505 510  
 Leu Gln Val Asn Ser Leu Ile Gln Thr Gln Lys Ser Ala Glu Leu Ala  
 515 520 525  
 Ala Ala Leu Leu Ser Ile Tyr Met Glu Arg Ala Glu Asp Leu Pro Leu  
 530 535 540  
 Arg Lys Gly Thr Lys His Leu Ser Pro Tyr Ala Thr Leu Thr Val Gly  
 545 550 555 560  
 Asp Ser Ser His Lys Thr Lys Thr Ile Ser Gln Thr Ser Ala Pro Val  
 565 570 575  
 Trp Asp Glu Ser Ala Ser Phe Leu Ile Arg Lys Pro His Thr Glu Ser  
 580 585 590  
 Leu Glu Leu Gln Val Arg Gly Glu Gly Thr Gly Val Leu Gly Ser Leu  
 595 600 605  
 Ser Leu Pro Leu Ser Glu Leu Leu Val Ala Asp Gln Leu Cys Leu Asp  
 610 615 620  
 Arg Trp Phe Thr Leu Ser Ser Gly Gln Gly Gln Val Leu Leu Arg Ala  
 625 630 635 640  
 Gln Leu Gly Ile Leu Val Ser Gln His Ser Gly Val Glu Ala His Ser  
 645 650 655  
 His Ser Tyr Ser His Ser Ser Ser Ser Leu Ser Glu Glu Pro Glu Leu  
 660 665 670  
 Ser Gly Gly Pro Xaa His Ile Thr Ser Ser Ala Pro Glu Leu Arg Gln  
 675 680 685  
 Arg Leu Thr His Val Asp Ser Pro Leu Glu Ala Pro Ala Gly Pro Leu  
 690 695 700  
 Gly Gln Val Lys Leu Thr Leu Trp Tyr Tyr Ser Glu Glu Arg Lys Leu  
 705 710 715 720  
 Val Ser Ile Val His Gly Cys Arg Ser Leu Arg Gln Asn Gly Arg Asp  
 725 730 735  
 Pro Pro Asp Pro Tyr Val Ser Leu Leu Leu Leu Pro Asp Lys Asn Arg  
 740 745 750

1083

[illegible]

**<210> 1089**

**<211> 409**

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (393)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (406)**

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1089

Arg Ser Ser Val Ala Ser Val His Thr Trp Arg Gln Arg Arg Gln Val  
1 5 10 15

Xaa Val Phe Val Leu Pro Ser Thr Ala Asn Met Lys Arg Pro Lys Leu  
20 25 30

1084

Lys Lys Ala Ser Lys Arg Met Thr Cys His Lys Arg Tyr Lys Ile Gln  
           35                                  40                                  45

Lys Lys Val Arg Glu His His Arg Lys Leu Arg Lys Glu Ala Lys Lys  
           50                                  55                                  60

Xaa Gly His Lys Lys Pro Arg Lys Asp Pro Gly Val Pro Asn Ser Ala  
           65                                  70                                  75                                  80

Pro Phe Lys Glu Ala Leu Leu Arg Glu Ala Glu Leu Arg Lys Gln Arg  
                                   85                                  90                                  95

Leu Glu Glu Leu Lys Gln Gln Gln Lys Leu Asp Arg Gln Lys Glu Leu  
                                   100                                  105                                  110

Glu Lys Lys Arg Lys Leu Glu Thr Asn Pro Asp Ile Lys Pro Ser Asn  
           115                                  120                                  125

Val Glu Pro Met Glu Lys Glu Phe Gly Leu Cys Lys Thr Glu Asn Lys  
           130                                  135                                  140

Ala Lys Ser Gly Lys Gln Asn Ser Lys Lys Leu Tyr Cys Gln Glu Leu  
           145                                  150                                  155                                  160

Lys Lys Val Ile Glu Ala Ser Asp Val Val Leu Glu Val Leu Asp Ala  
                                   165                                  170                                  175

Arg Asp Pro Leu Gly Cys Arg Cys Pro Gln Val Glu Glu Ala Ile Val  
                                   180                                  185                                  190

Gln Ser Gly Gln Lys Lys Leu Val Leu Ile Leu Asn Lys Ser Asp Leu  
           195                                  200                                  205

Val Pro Lys Glu Asn Leu Glu Ser Trp Leu Asn Tyr Leu Lys Lys Glu  
           210                                  215                                  220

Leu Pro Thr Val Val Phe Arg Ala Ser Thr Lys Pro Lys Asp Lys Gly  
           225                                  230                                  235                                  240

Lys Ile Thr Lys Arg Val Lys Ala Lys Lys Asn Ala Ala Pro Phe Arg  
                                   245                                  250                                  255

Ser Glu Val Cys Phe Gly Lys Glu Gly Leu Trp Lys Leu Leu Gly Gly  
                                   260                                  265                                  270

Phe Gln Glu Thr Cys Ser Lys Ala Ile Arg Val Gly Val Ile Gly Phe  
           275                                  280                                  285

Pro Asn Val Gly Lys Ser Ser Ile Ile Asn Ser Leu Lys Gln Glu Gln  
           290                                  295                                  300



1085

Met Cys Asn Val Gly Val Ser Met Gly Leu Thr Arg Ser Met Gln Val  
 305 310 315 320

Val Pro Leu Asp Lys Gln Ile Thr Ile Ile Asp Ser Pro Ser Phe Ile  
 325 330 335

Val Ser Pro Leu Asn Ser Ser Ser Ala Leu Ala Leu Arg Ser Pro Ala  
 340 345 350

Ser Ile Glu Val Val Lys Pro Met Glu Ala Ala Ser Ala Ile Leu Ser  
 355 360 365

Gln Ala Asp Ala Arg Gln Val Val Leu Lys Tyr Thr Val Pro Gly Tyr  
 370 375 380

Arg Asn Ser Leu Gly Ile Phe Tyr Xaa Ala Cys Ser Glu Lys Arg Tyr  
 385 390 395 400

Ala Pro Lys Arg Trp Xaa Pro Lys Cys  
 405

<210> 1090

<211> 161

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1090

Pro Lys Asn Trp Xaa Thr Ala Arg Ala Asp His His Ala Ser Met Asn  
 1 5 10 15

Trp Val Pro Cys Gly His Ser Tyr Phe Gly Ala Thr Leu Asn Ser Phe  
 20 25 30

Ile His Val Leu Met Tyr Ser Tyr Gly Leu Ser Ser Val Pro Ser  
 35 40 45

Met Arg Pro Tyr Leu Trp Trp Xaa Glu Val His His Ser Gly Ala Ala  
 50 55 60

1086

Ala Ser Val Cys Ala Asp Asn His Pro Asp Gln Leu Arg Gly His Leu  
65 70 75 80

Ala Val His Ile Pro Ser Trp Leu Val Val Phe Pro Asp Trp Ile His  
85 90 95

Asp Phe Pro Asp Cys Ser Leu His Lys Leu Leu His Ser Asp Leu Gln  
100 105 110

Gln Glu Arg Gly Leu Pro Lys Glu Arg Pro Pro Glu Gly Pro Pro Glu  
115 120 125

Trp Val His Gly Cys Cys Glu Trp Thr His Gln Gln Leu Phe Thr Pro  
130 135 140

Gly Lys Gln Cys Glu Ala Lys Glu Ala Ala Glu Gly Leu Lys Ser Lys  
145 150 155 160

Asn

&lt;210&gt; 1091

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1091

Ser Lys Asn Ser Ala Arg Glu Glu Met Ala Ala Ser Ser Ser Ser Ser  
1 5 10 15

Ser Ala Gly Gly Val Ser Gly Ser Ser Val Thr Gly Ser Gly Phe Ser  
20 25 30

Val Ser Asp Leu Ala Pro Pro Arg Lys Ala Leu Phe Thr Tyr Pro Lys  
35 40 45

Gly Ala Gly Glu Met Leu Glu Asp Gly Ser Glu Arg Phe Leu Cys Glu  
50 55 60

Ser Val Phe Ser Tyr Gln Val Ala Ser Thr Leu Lys Gln Val Lys His  
65 70 75 80

Asp Gln Gln Val Ala Arg Met Glu Lys Leu Ala Gly Leu Val Glu Glu  
85 90 95

Leu Glu Ala Asp Glu Trp Arg Phe Lys Pro Ile Glu Gln Leu Leu Gly  
100 105 110

1087

Phe Thr Pro Ser Ser Gly  
115

&lt;210&gt; 1092

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1092

Ala Pro Phe Leu Ala Ala Gly Val Ser Met Gly Gly Met Leu Leu Leu  
1 5 10 15

Asn Tyr Leu Gly Lys Ile Gly Ser Lys Thr Pro Leu Met Ala Ala Ala  
20 25 30

Thr Phe Ser Val Gly Trp Asn Thr Phe Ala Cys Ser Glu Ser Leu Glu  
35 40 45

Lys Pro Leu Asn Trp Leu Leu Phe Asn Tyr Tyr Leu Thr Thr Cys Leu  
50 55 60

Gln Ser Ser Val Asn Lys His Arg His Met Phe Val Lys Gln Val Asp  
65 70 75 80

Met Asp His Val Met Lys Ala Lys Ser Ile Arg Glu Phe Asp Lys Arg  
85 90 95

Phe Thr Ser Val Met Phe Gly Tyr Gln Thr Ile Asp Asp Tyr Tyr Thr  
100 105 110

Asp Ala Ser Pro Ser Pro Arg Leu Lys Ser Val Gly Ile Pro Val Leu  
115 120 125

Cys Leu Asn Ser Val Asp Asp Val Phe Ser Pro Ser His Ala Ile Pro  
130 135 140

Ile Glu Thr Ala Lys Gln Asn Pro Asn Val Ala Leu Val Leu Thr Ser  
145 150 155 160

Tyr Gly Gly His Ile Gly Phe Leu Glu Gly Ile Trp Pro Arg Gln Ser  
165 170 175

Thr Tyr Met Asp Arg Val Phe Lys Gln Phe Val Gln Ala Met Val Glu  
180 185 190

His Gly His Glu Leu Ser  
195

1088

&lt;210&gt; 1093

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1093

Pro Gly Trp Ser Arg Ser Pro Gly Trp Ser Arg Ser Pro Gly Trp Ser  
1 5 10 15

Arg Ser Pro Asp Val Val Ile His Pro Pro Arg Pro Pro Lys Met Leu  
20 25 30

Gly Leu Gln Val  
35

&lt;210&gt; 1094

&lt;211&gt; 615

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (113)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (132)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (156)

1089

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1094

Tyr Xaa Gln Leu Val Leu Leu Gln Val Pro Val Arg Ile Pro Gly Ser  
 1 5 10 15

Thr His Ala Ser Xaa Asp Ala Trp Val Ala Arg Gln Leu Ala Lys Pro  
 20 25 30

Asp Asn Thr Leu Phe Val Asn Arg Thr Leu Phe Asp Gln Val Leu Glu  
 35 40 45

Phe Leu Cys Ser Pro Asp Asp Asp Ser Arg His Ser Glu Arg Gln Gln  
 50 55 60

Val Leu Leu Glu Leu Leu Gln Ala Gly Gly Ile Val Gln Phe Glu Glu  
 65 70 75 80

Ser Arg Leu Ile Arg Met Ala Glu Lys Ala Glu Phe Tyr Gln Ile Cys  
 85 90 95

Glu Phe Met Tyr Glu Arg Glu His Gln Tyr Asp Lys Ile Ile Asp Cys  
 100 105 110

Xaa Leu Arg Asp Pro Leu Arg Glu Glu Glu Val Phe Asn Tyr Ile His  
 115 120 125

Asn Ile Leu Xaa Ile Pro Gly His Ser Ala Glu Glu Lys Gln Ser Val  
 130 135 140

Trp Gln Lys Ala Met Asp His Ile Glu Glu Xaa Xaa Xaa Leu Lys Pro  
 145 150 155 160

Cys Lys Ala Ala Glu Leu Val Ala Thr His Phe Ser Gly His Ile Glu  
 165 170 175

Thr Val Ile Lys Lys Leu Gln Asn Gln Val Leu Leu Phe Lys Phe Leu  
 180 185 190

Arg Ser Leu Leu Asp Pro Arg Glu Gly Ile His Val Asn Gln Glu Leu  
 195 200 205

Leu Gln Ile Ser Pro Cys Ile Thr Glu Gln Phe Ile Glu Leu Leu Cys  
 210 215 220

Gln Phe Asn Pro Thr Gln Val Ile Glu Thr Leu Gln Val Leu Glu Cys

1090

225	230	235	240
Tyr Arg Leu Glu Glu Thr Ile Gln Ile Thr Gln Lys Tyr Gln Leu His			
	245	250	255
Glu Val Thr Ala Tyr Leu Leu Glu Lys Lys Gly Asp Ile His Gly Ala			
	260	265	270
Phe Leu Ile Met Leu Glu Arg Leu Gln Ser Lys Leu Gln Glu Val Thr			
	275	280	285
His Gln Gly Glu Asn Thr Lys Glu Asp Pro Ser Leu Lys Asp Val Glu			
	290	295	300
Asp Thr Met Val Glu Thr Ile Ala Leu Cys Gln Arg Asn Ser His Asn			
305	310	315	320
Leu Asn Gln Gln Gln Arg Glu Ala Leu Trp Phe Pro Leu Leu Glu Ala			
	325	330	335
Met Met Ala Pro Gln Lys Leu Ser Ser Ser Ala Ile Pro His Leu His			
	340	345	350
Ser Glu Ala Leu Lys Ser Leu Thr Met Gln Val Leu Asn Ser Met Ala			
	355	360	365
Ala Phe Ile Ala Leu Pro Ser Ile Leu Gln Arg Ile Leu Gln Asp Pro			
	370	375	380
Val Tyr Gly Lys Gly Lys Leu Gly Glu Ile Gln Gly Leu Ile Leu Gly			
385	390	395	400
Met Leu Asp Thr Phe Asn Tyr Glu Gln Thr Leu Leu Glu Thr Thr Thr			
	405	410	415
Ser Leu Leu Asn Gln Asp Leu His Trp Ser Leu Cys Asn Leu Arg Ala			
	420	425	430
Ser Val Thr Arg Gly Leu Asn Pro Lys Gln Asp Tyr Cys Ser Ile Cys			
	435	440	445
Leu Gln Gln Tyr Lys Arg Arg Gln Glu Met Ala Asp Glu Ile Ile Val			
	450	455	460
Phe Ser Cys Gly His Leu Tyr His Ser Phe Cys Leu Gln Asn Lys Glu			
465	470	475	480
Cys Thr Val Glu Phe Glu Gly Gln Thr Arg Trp Thr Cys Tyr Lys Cys			
	485	490	495
Ser Ser Ser Asn Lys Val Gly Lys Leu Ser Glu Asn Ser Ser Glu Ile			

1091

500	505	510
Lys Lys Gly Arg Ile Thr Pro Ser Gln Val Lys Met Ser Pro Ser Tyr		
515	520	525
His Gln Ser Lys Gly Asp Pro Thr Ala Lys Lys Gly Thr Ser Glu Pro		
530	535	540
Val Leu Asp Pro Gln Gln Ile Gln Ala Phe Asp Gln Leu Cys Arg Leu		
545	550	555
Tyr Arg Gly Ser Ser Arg Leu Ala Leu Leu Thr Glu Leu Ser Gln Asn		
565	570	575
Arg Ser Ser Glu Ser Tyr Arg Pro Phe Ser Gly Ser Gln Ser Ala Pro		
580	585	590
Ala Phe Asn Ser Ile Phe Gln Asn Glu Asn Phe Gln Leu Gln Leu Ile		
595	600	605
Pro Pro Pro Val Thr Glu Asp		
610	615	

&lt;210&gt; 1095

&lt;211&gt; 264

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1095

Trp Xaa Ser Thr Thr Ile Trp Lys Ala Gly Pro Pro Ala Gly Thr Gly
1 5 10 15

Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Xaa Thr Arg Gly Phe Trp
20 25 30

Phe Cys Ser Ser Val Trp Val Ser Ser Arg Leu Leu Lys Met Asn Arg
35 40 45

Leu Phe Gly Lys Ala Lys Pro Lys Ala Pro Pro Pro Ser Leu Thr Asp

1092

50	55	60
Cys Ile Gly Thr Val Asp Ser Arg Ala Glu Ser Ile Asp Lys Lys Ile		
65	70	75 80
Ser Arg Leu Asp Ala Glu Leu Val Lys Tyr Lys Asp Gln Ile Lys Lys		
	85	90 95
Met Arg Glu Gly Pro Ala Lys Asn Met Val Lys Gln Lys Ala Leu Arg		
	100	105 110
Val Leu Lys Gln Lys Arg Met Tyr Glu Gln Gln Arg Asp Asn Leu Ala		
	115	120 125
Gln Gln Ser Phe Asn Met Glu Gln Ala Asn Tyr Thr Ile Gln Ser Leu		
	130	135 140
Lys Asp Thr Lys Thr Thr Val Asp Ala Met Lys Leu Gly Val Lys Glu		
	145	150 155 160
Met Lys Lys Ala Tyr Lys Gln Val Lys Ile Asp Gln Ile Glu Asp Leu		
	165	170 175
Gln Asp Gln Leu Glu Asp Met Met Glu Asp Ala Asn Glu Ile Gln Glu		
	180	185 190
Ala Leu Ser Arg Ser Tyr Gly Thr Pro Glu Leu Asp Glu Asp Asp Leu		
	195	200 205
Glu Ala Glu Leu Asp Ala Leu Gly Asp Glu Leu Leu Ala Asp Glu Asp		
	210	215 220
Ser Ser Tyr Leu Asp Glu Ala Ala Ser Ala Pro Ala Ile Pro Glu Gly		
	225	230 235 240
Val Pro Thr Asp Thr Lys Asn Lys Asp Gly Val Leu Val Asp Glu Phe		
	245	250 255
Gly Leu Pro Gln Ile Pro Ala Ser		
	260	

&lt;210&gt; 1096

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1096

Ser Cys Cys Phe Leu Lys Arg Leu Gln Ala Ser Phe Pro Arg Thr Ala
1 5 10 15



1093

Val Ser Phe Glu Pro Leu Ala Gly Asp Met Pro Arg Gly Arg Lys Ser  
                   20                  25                  30  
 Arg Arg Arg Arg Asn Ala Arg Ala Ala Glu Glu Asn Arg Asn Asn Arg  
                   35                  40                  45  
 Lys Ile Gln Ala Ser Glu Ala Ser Glu Thr Pro Met Ala Ala Ser Val  
                   50                  55                  60  
 Val Ala Ser Thr Pro Glu Asp Asp Leu Ser Gly Pro Glu Glu Asp Pro  
                   65                  70                  75                  80  
 Ser Thr Pro Glu Glu Ala Ser Thr Thr Pro Glu Glu Ala Ser Ser Thr  
                   85                  90                  95  
 Ala Gln Ala Gln Lys Pro Ser Val Pro Arg Ser Asn Phe Gln Gly Thr  
                   100                  105                  110  
 Lys Lys Ser Leu Leu Met Ser Ile Leu Ala Leu Ile Phe Ile Met Gly  
                   115                  120                  125  
 Asn Ser Ala Lys Glu Ala Leu Val Trp Lys Val Leu Gly Lys Leu Gly  
                   130                  135                  140  
 Met Gln Pro Gly Arg Gln His Ser Ile Phe Gly Asp Pro Lys Lys Ile  
                   145                  150                  155                  160  
 Val Thr Glu Glu Phe Val Arg Arg Gly Tyr Leu Ile Tyr Lys Pro Val  
                   165                  170                  175  
 Pro Arg Ser Ser Pro Val Glu Tyr Glu Phe Phe Trp Gly Pro Arg Ala  
                   180                  185                  190  
 His Val Glu Ser Ser Lys Leu Lys Val Met His Phe Val Ala Arg Val  
                   195                  200                  205  
 Arg Asn Arg Cys Ser Lys Asp Trp Pro Cys Asn Tyr Asp Trp Asp Ser  
                   210                  215                  220  
 Asp Asp Asp Ala Glu Val Glu Ala Ile Leu Asn Ser Gly Ala Arg Gly  
                   225                  230                  235                  240  
 Tyr Ser Ala Pro

&lt;210&gt; 1097

&lt;211&gt; 132

&lt;212&gt; PRT

1094

&lt;213&gt; Homo sapiens

&lt;400&gt; 1097

```

Ala Thr Met Val Arg Met Asn Val Leu Ala Asp Ala Leu Lys Ser Ile
 1           5           10           15

Asn Asn Ala Glu Lys Arg Gly Lys Arg Gln Val Leu Ile Arg Pro Cys
      20           25           30

Ser Lys Val Ile Val Arg Phe Leu Thr Val Met Met Lys His Gly Tyr
      35           40           45

Ile Gly Glu Phe Glu Ile Ile Asp Asp His Arg Ala Gly Lys Ile Val
      50           55           60

Val Asn Leu Thr Gly Arg Leu Asn Lys Cys Gly Val Ile Ser Pro Arg
      65           70           75           80

Phe Asp Val Gln Leu Lys Asp Leu Glu Lys Trp Gln Asn Asn Leu Leu
      85           90           95

Pro Ser Arg Gln Phe Gly Phe Ile Val Leu Thr Thr Ser Ala Gly Ile
      100          105          110

Met Asp His Glu Glu Ala Arg Arg Lys His Thr Gly Gly Lys Ile Leu
      115          120          125

Gly Phe Phe Phe
      130

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&lt;210&gt; 1098

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (186)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1098

```

Ala Arg His Thr Pro Ala Gln Arg His Asp His Pro Gln Glu Gly Asn
 1           5           10           15

```

1095

Ile Pro Val Cys Val Gln Leu Ala Val Cys Ala Leu Pro Leu Pro Val  
                   20                  25                  30  
 Val Pro Gly Pro Glu His Cys Gly Pro Gln Arg Xaa Leu Gln Pro Leu  
                   35                  40                  45  
 Val Tyr Pro Leu Ala Gln Val Ile Ile Gly Cys Ile Lys Leu Ile Pro  
                   50                  55                  60  
 Thr Ala Arg Phe Tyr Pro Leu Arg Met His Cys Ile Arg Ala Leu Thr  
                   65                  70                  75                  80  
 Leu Leu Ser Gly Ser Ser Gly Ala Phe Ile Pro Val Leu Pro Phe Ile  
                                   85                  90                  95  
 Leu Glu Met Phe Gln Gln Val Asp Phe Asn Arg Lys Pro Gly Arg Met  
                   100                  105                  110  
 Ser Ser Lys Pro Ile Asn Phe Ser Val Ile Leu Lys Leu Ser Asn Val  
                   115                  120                  125  
 Asn Leu Gln Glu Lys Ala Tyr Arg Asp Gly Leu Val Glu Gln Leu Tyr  
                   130                  135                  140  
 Asp Leu Thr Leu Glu Tyr Leu His Ser Gln Ala His Cys Ile Gly Phe  
                   145                  150                  155                  160  
 Pro Glu Leu Val Leu Pro Val Val Leu Gln Leu Lys Ser Phe Leu Arg  
                   165                  170                  175  
 Glu Cys Lys Val Ala Asn Tyr Cys Arg Xaa Val Gln Gln Leu Leu Gly  
                   180                  185                  190  
 Lys Val Gln Glu Asn Ser Ala Tyr Ile Cys Ser Arg Arg Gln Arg Val  
                   195                  200                  205  
 Ser Phe Gly Val Ser Glu Gln Gln Ala Val Glu Ala Trp Glu Lys Leu  
                   210                  215                  220  
 Thr Arg Glu Glu Gly Thr Pro Leu Thr Leu Tyr Tyr Ser His Trp Arg  
                   225                  230                  235                  240  
 Lys Leu Arg Asp Arg Glu Ile Gln Leu Glu Ile Ser Gly Lys Glu Arg  
                   245                  250                  255  
 Leu Glu Asp Leu Asn Phe Pro Glu Ile Lys Arg Arg Lys Met Ala Asp  
                   260                  265                  270  
 Arg Lys Asp Glu Asp Arg Lys Gln Phe Lys Asp Leu Phe Asp Leu Asn  
                   275                  280                  285

1096

Ser Ser Glu Glu Asp Asp Thr Glu Gly Phe Ser Glu Arg Gly Ile Leu  
 290 295 300  
 Arg Pro Leu Ser Thr Arg His Gly Val Glu Asp Asp Glu Glu Asp Glu  
 305 310 315 320  
 Glu Glu Gly Glu Glu Asp Ser Ser Asn Ser Glu Gly Glu Trp Ser Trp  
 325 330 335  
 Asp Gly Asp Pro Asp Ala Glu Ala Gly Leu Ala Pro Gly Glu Leu Gln  
 340 345 350  
 Gln Leu Ala Gln Gly Pro Glu Asp Glu Leu Glu Asp Leu Gln Leu Ser  
 355 360 365  
 Glu Asp Asp  
 370

&lt;210&gt; 1099

&lt;211&gt; 321

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1099

Glu Arg Thr Leu Gly Gln Pro Gly Phe Leu Gly Cys Pro Arg Gln Pro  
 1 5 10 15  
 His Thr Ala Met His Tyr Pro Thr Ala Leu Leu Phe Leu Ile Leu Ala  
 20 25 30  
 Asn Gly Ala Gln Ala Phe Arg Ile Cys Ala Phe Asn Ala Gln Arg Leu  
 35 40 45  
 Thr Leu Ala Lys Val Ala Arg Glu Gln Val Met Asp Thr Leu Val Arg  
 50 55 60  
 Ile Leu Ala Arg Cys Asp Ile Met Val Leu Gln Glu Val Val Asp Ser  
 65 70 75 80  
 Ser Gly Ser Ala Ile Pro Leu Leu Leu Arg Glu Leu Asn Arg Phe Asp  
 85 90 95  
 Gly Ser Gly Pro Tyr Ser Thr Leu Ser Ser Pro Gln Leu Gly Arg Ser  
 100 105 110  
 Thr Tyr Met Glu Thr Tyr Val Tyr Phe Tyr Arg Ser His Lys Thr Gln  
 115 120 125  
 Val Leu Ser Ser Tyr Val Tyr Asn Asp Glu Asp Asp Val Phe Ala Arg

1097

130	135	140
Glu Pro Phe Val Ala Gln Phe Ser Leu Pro Ser Asn Val Leu Pro Ser		
145	150	155 160
Leu Val Leu Val Pro Leu His Thr Thr Pro Lys Ala Val Glu Lys Glu		
	165	170 175
Leu Asn Ala Leu Tyr Asp Val Phe Leu Glu Val Ser Gln His Trp Gln		
	180	185 190
Ser Lys Asp Val Ile Leu Leu Gly Asp Phe Asn Ala Asp Cys Ala Ser		
	195	200 205
Leu Thr Lys Lys Arg Leu Asp Lys Leu Glu Leu Arg Thr Glu Pro Gly		
	210	215 220
Phe His Trp Val Ile Ala Asp Gly Glu Asp Thr Thr Val Arg Ala Ser		
	225	230 235 240
Thr His Cys Thr Tyr Asp Arg Val Val Leu His Gly Glu Arg Cys Arg		
	245	250 255
Ser Leu Leu His Thr Ala Ala Ala Phe Asp Phe Pro Thr Ser Phe Gln		
	260	265 270
Leu Thr Glu Glu Glu Ala Leu Asn Ile Ser Asp His Tyr Pro Val Glu		
	275	280 285
Val Glu Leu Lys Leu Ser Gln Ala His Ser Val Gln Pro Leu Ser Leu		
	290	295 300
Thr Val Leu Leu Leu Leu Ser Leu Leu Ser Pro Gln Leu Cys Pro Ala		
	305	310 315 320
Ala		

&lt;210&gt; 1100

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1100

Leu Leu Leu Cys Val Phe Tyr Ile Ala Cys Phe Cys Lys Asn Met Leu
1 5 10 15

Gly Asp Glu Arg Leu Val Leu Glu Arg Lys Cys Ser Ser Val Gln Arg
20 25 30

1098

Met His Phe Leu Pro Leu Ile Leu Glu Lys Thr Phe Thr Val Ile Tyr  
                   35                                  40                                  45

Met Val Phe Cys Lys Arg Thr Ile Asn Arg Thr Phe  
           50                                  55                                  60

<210> 1101

<211> 254

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1101

Phe Gly Thr Ser Tyr Ile Gly Gly Leu Leu Ser Ala Phe Tyr Leu Thr  
   1                                  5                                  10                                  15

Gly Glu Glu Val Phe Arg Ile Lys Ala Ile Arg Leu Gly Glu Lys Leu  
                   20                                  25                                  30

Leu Pro Ala Phe Asn Thr Pro Thr Gly Ile Pro Lys Gly Val Val Ser  
                   35                                  40                                  45

Phe Lys Ser Gly Asn Trp Gly Trp Ala Thr Ala Gly Ser Ser Ser Ile  
           50                                  55                                  60

Leu Ala Glu Phe Gly Ser Leu His Leu Glu Phe Leu His Leu Thr Glu  
   65                                  70                                  75                                  80

Leu Ser Gly Asn Gln Val Phe Ala Glu Lys Val Arg Asn Ile Arg Lys  
                                   85                                  90                                  95

Val Leu Arg Lys Ile Glu Lys Pro Phe Gly Leu Tyr Pro Asn Phe Leu  
                   100                                  105                                  110

Ser Pro Val Ser Gly Asn Trp Val Gln His His Val Ser Val Gly Gly  
           115                                  120                                  125

Leu Gly Asp Ser Phe Tyr Glu Tyr Leu Ile Lys Ser Trp Leu Met Ser  
   130                                  135                                  140

1099

Gly Lys Thr Asp Met Glu Ala Lys Asn Met Tyr Tyr Glu Ala Leu Glu  
 145 150 155 160

Ala Xaa Arg Asp Leu Leu Ala Glu Cys Xaa Ser Arg Gly Ala Asp Leu  
 165 170 175

His Cys Arg Val Ala Arg Gly Asp Ser Gly Pro Gln Asp Gly Ala Pro  
 180 185 190

Gly Leu Phe Leu Arg Gly His Asp Arg Pro Trp Pro Glu Asp Ala Lys  
 195 200 205

Glu Glu Lys Arg Ala His Tyr Arg Glu Leu Ala Ala Gln Ile Thr Lys  
 210 215 220

Thr Cys His Glu Ser Tyr Ala Arg Ser Asp Thr Lys Leu Gly Pro Glu  
 225 230 235 240

Ala Ser Gly Leu Thr Pro Ala Glu Arg Pro Trp Pro Pro Ser  
 245 250

<210> 1102

<211> 233

<212> PRT

<213> Homo sapiens

<400> 1102

Gly Pro Gly Trp Tyr Pro Ala Pro Leu Arg Leu Phe His Ser Asp Pro  
 1 5 10 15

Trp Gly His Ala Gln Pro Gly Ala Lys Arg His Arg Ile Pro Glu Pro  
 20 25 30

Glu Ala Ala Val Leu Phe Arg Gln Met Ala Thr Ala Leu Ala His Cys  
 35 40 45

His Gln His Gly Leu Val Leu Arg Asp Leu Lys Leu Cys Arg Phe Val  
 50 55 60

Phe Ala Asp Arg Glu Arg Lys Lys Leu Val Leu Glu Asn Leu Glu Asp  
 65 70 75 80

Ser Cys Val Leu Thr Gly Pro Asp Asp Ser Leu Trp Asp Lys His Ala  
 85 90 95

Cys Pro Ala Tyr Val Gly Pro Glu Ile Leu Ser Ser Arg Ala Ser Tyr  
 100 105 110

1100

Ser Gly Lys Ala Ala Asp Val Trp Ser Leu Gly Val Ala Leu Phe Thr  
 115 120 125  
 Met Leu Ala Gly His Tyr Pro Phe Gln Asp Ser Glu Pro Val Leu Leu  
 130 135 140  
 Phe Gly Lys Ile Arg Arg Gly Ala Tyr Ala Leu Pro Ala Gly Leu Ser  
 145 150 155 160  
 Ala Pro Ala Arg Cys Leu Val Arg Cys Leu Leu Arg Arg Glu Pro Ala  
 165 170 175  
 Glu Arg Leu Thr Ala Thr Gly Ile Leu Leu His Pro Trp Leu Arg Gln  
 180 185 190  
 Asp Pro Met Pro Leu Ala Pro Thr Arg Ser His Leu Trp Glu Ala Ala  
 195 200 205  
 Gln Val Val Pro Asp Gly Leu Gly Leu Asp Glu Ala Arg Glu Glu Glu  
 210 215 220  
 Gly Asp Arg Glu Val Val Leu Tyr Gly  
 225 230

&lt;210&gt; 1103

&lt;211&gt; 330

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1103

Cys Gln Leu Arg Ser Ala Ala Gly Val Pro Ser Ser Val Ser Val Ser  
 1 5 10 15  
 Pro Arg Asp Pro Ile Ala Met Glu Leu Ser Asp Ala Asn Leu Gln Thr  
 20 25 30  
 Leu Thr Glu Tyr Leu Lys Lys Thr Leu Asp Pro Asp Pro Ala Ile Arg  
 35 40 45  
 Arg Pro Ala Glu Lys Phe Leu Glu Ser Val Glu Gly Asn Gln Asn Tyr  
 50 55 60  
 Pro Leu Leu Leu Leu Thr Leu Leu Glu Lys Ser Gln Asp Asn Val Ile  
 65 70 75 80  
 Lys Val Cys Ala Ser Val Thr Phe Lys Asn Tyr Ile Lys Arg Asn Trp  
 85 90 95  
 Arg Ile Val Glu Asp Glu Pro Asn Lys Ile Cys Glu Ala Asp Arg Val



1101

100	105	110
Ala Ile Lys Ala Asn Ile Val His Leu Met Leu Ser Ser Pro Glu Gln 115	120	125
Ile Gln Lys Gln Leu Ser Asp Ala Ile Ser Ile Ile Gly Arg Glu Asp 130	135	140
Phe Pro Gln Lys Trp Pro Asp Leu Leu Thr Glu Met Val Asn Arg Phe 145	150	155 160
Gln Ser Gly Asp Phe His Val Ile Asn Gly Val Leu Arg Thr Ala His 165	170	175
Ser Leu Phe Lys Arg Tyr Arg His Glu Phe Lys Ser Asn Glu Leu Trp 180	185	190
Thr Glu Ile Lys Leu Val Leu Asp Ala Phe Ala Leu Pro Leu Thr Asn 195	200	205
Leu Phe Lys Ala Thr Ile Glu Leu Cys Ser Thr His Ala Asn Asp Ala 210	215	220
Ser Ala Leu Arg Ile Leu Phe Ser Ser Leu Ile Leu Ile Ser Lys Leu 225	230	235 240
Phe Tyr Ser Leu Asn Phe Gln Asp Leu Pro Glu Phe Phe Glu Asp Asn 245	250	255
Met Glu Thr Trp Met Asn Asn Phe His Thr Leu Leu Thr Leu Asp Asn 260	265	270
Lys Leu Leu Gln Thr Asp Asp Glu Glu Glu Ala Gly Leu Leu Glu Leu 275	280	285
Leu Lys Ser Gln Ile Cys Asp Asn Ala Ala Leu Tyr Ala Gln Lys Tyr 290	295	300
Asp Glu Glu Phe Gln Arg Tyr Leu Pro Arg Phe Val Thr Ala Ile Trp 305	310	315 320
Glu Phe Thr Ser Tyr Asn Gly Ser Arg Gly 325	330	

&lt;210&gt; 1104

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1102

<220>  
<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (150)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (167)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (171)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (175)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (177)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (180)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1104  
Gly Thr Ser Pro Gly Arg Gly Gly Xaa Gly Val Gly Leu Arg Gly Leu  
1 5 10 15  
Ser Ser Leu Gln Ala Pro Gln Pro Ser Arg Val Pro Trp Pro Met Ala  
20 25 30  
Ala Tyr Ser Tyr Arg Pro Gly Pro Gly Ala Gly Pro Gly Pro Ala Ala  
35 40 45  
Gly Ala Ala Leu Pro Asp Gln Ser Phe Leu Trp Asn Val Phe Gln Arg  
50 55 60  
Val Asp Lys Asp Arg Ser Gly Val Ile Ser Asp Thr Glu Leu Gln Gln  
65 70 75 80

1103

Ala Leu Ser Asn Gly Thr Trp Thr Pro Phe Asn Pro Val Thr Val Arg  
                             85                            90                            95

Ser Ile Ile Ser Met Phe Asp Arg Glu Asn Lys Ala Gly Val Asn Phe  
                             100                            105                            110

Ser Glu Phe Thr Gly Val Trp Lys Tyr Ile Thr Asp Trp Gln Asn Val  
                             115                            120                            125

Phe Arg Thr Tyr Asp Arg Asp Asn Ser Gly Met Ile Asp Lys Asn Glu  
                             130                            135                            140

Leu Lys Gln Ala Leu Xaa Val Ser Ala Thr Gly Ser Leu Thr Ser Ser  
 145                            150                            155                            160

Thr Thr Ser Ser Phe Glu Xaa Leu Thr Gly Xaa Gly Arg Gly Xaa Ser  
                             165                            170                            175

Xaa Ser Thr Xaa  
                             180

&lt;210&gt; 1105

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1105

Thr Thr Arg Phe Pro Ser Gly Gln Pro Leu Lys Pro Arg Pro Thr Leu  
   1                            5                            10                            15

Thr Ala Ala Gly Pro Arg Pro Gly Leu Leu Cys Phe Thr Ile Tyr Ile  
                             20                            25                            30

Met Asn Pro Ser Met Lys Gln Lys Gln Glu Glu Ile Lys Glu Asn Ile  
                             35                            40                            45

Lys Asn Ser Ser Val Pro Arg Arg Thr Leu Lys Met Ile Gln Pro Ser  
                             50                            55                            60

Ala Ser Gly Ser Leu Val Gly Arg Glu Asn Glu Leu Ser Ala Gly Leu  
   65                            70                            75                            80

Ser Lys Arg Lys His Arg Asn Asp His Leu Thr Ser Thr Thr Ser Ser  
                             85                            90                            95

Pro Gly Val Ile Val Pro Glu Ser Ser Glu Asn Lys Asn Leu Gly Gly  
                             100                            105                            110

Val Thr Gln Glu Ser Phe Asp Leu Met Ile Lys Glu Asn Pro Ser Ser

1104

115	120	125
Gln Tyr Trp Lys Glu Val Ala Glu Lys Arg Arg Lys Ala Leu Tyr Glu		
130	135	140
Ala Leu Lys Glu Asn Glu Lys Leu His Lys Glu Ile Glu Gln Lys Asp		
145	150	155 160
Asn Glu Ile Ala Arg Leu Lys Lys Glu Asn Lys Glu Leu Ala Glu Val		
165	170	175
Ala Glu His Val Gln Tyr Met Ala Glu Leu Ile Glu Arg Leu Asn Gly		
180	185	190
Glu Pro Leu Asp Asn Phe Glu Ser Leu Asp Asn Gln Glu Phe Asp Ser		
195	200	205
Glu Glu Glu Thr Val Glu Asp Ser Leu Val Glu Asp Ser Glu Ile Gly		
210	215	220
Thr Cys Ala Glu Gly Thr Val Ser Ser Ser Thr Asp Ala Lys Pro Cys		
225	230	235 240
Ile		

<210> 1106  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 1106

Phe His Thr Glu Phe Ile Thr Ile Trp Asp Val Arg Gln Cys Ser Asn
1 5 10 15
Lys His Cys Gln His Val Asn Phe Leu Lys Ser Val Gly His Ile Ala
20 25 30
Lys Asn Leu Leu Lys His Asn Cys Ile Phe Cys Phe Arg Ala Leu Leu
35 40 45
Met Phe Cys Arg Ser Asn Val Cys Ile Phe Leu Leu Asn Lys Leu Val
50 55 60
Leu Ile Leu Glu Leu Ser Asp Asp Phe Val Leu Glu Arg Thr Thr Gln
65 70 75 80
Arg Arg Gln Cys Lys Ser Lys Ser
85

1105

&lt;210&gt; 1107

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1107

Leu Val Val Leu Lys Arg Arg Pro Glu Lys Ser Gln Gly His Glu His  
1 5 10 15

Arg Ala Met Pro Phe Leu Asp Ile Gln Lys Arg Phe Gly Leu Asn Ile  
20 25 30

Asp Arg Trp Leu Thr Ile Gln Ser Gly Glu Gln Pro Tyr Lys Met Ala  
35 40 45

Gly Arg Cys His Ala Phe Glu Lys Glu Trp Ile Glu Cys Ala His Gly  
50 55 60

Ile Gly Tyr Thr Arg Ala Glu Lys Glu Cys Lys Ile Glu Tyr Asp Asp  
65 70 75 80

Phe Val Glu Cys Leu Leu Arg Gln Lys Thr Met Arg Arg Ala Gly Thr  
85 90 95

Ile Arg Lys Gln Arg Asp Lys Leu Ile Lys Glu Gly Lys Tyr Thr Pro  
100 105 110

Pro Pro His His Ile Gly Lys Gly Glu Pro Arg Pro  
115 120

&lt;210&gt; 1108

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (186)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1108

1106

His Leu Leu Cys Cys Arg Ala Gln Arg Arg Pro Gln Thr Pro Pro Ala  
 1 5 10 15  
 Ala Arg Gly Leu Glu Pro Ala Gln Arg Cys Phe Glu Asp Ala Gly Xaa  
 20 25 30  
 Pro Pro Leu Leu Leu Ala Ala Val Leu Leu Gly Leu Val Leu Leu Val  
 35 40 45  
 Val Leu Leu Leu Leu Leu Arg His Trp Gly Trp Gly Leu Cys Leu Ile  
 50 55 60  
 Gly Trp Asn Glu Phe Ile Leu Gln Pro Ile His Asn Leu Leu Met Gly  
 65 70 75 80  
 Asp Thr Lys Glu Gln Arg Ile Leu Asn His Val Leu Gln His Ala Glu  
 85 90 95  
 Pro Gly Asn Ala Gln Ser Val Leu Glu Ala Ile Asp Thr Tyr Cys Glu  
 100 105 110  
 Gln Lys Glu Trp Ala Met Asn Val Gly Asp Lys Lys Gly Lys Ile Val  
 115 120 125  
 Asp Ala Val Ile Gln Glu His Gln Pro Ser Val Leu Leu Glu Leu Gly  
 130 135 140  
 Ala Tyr Cys Gly Tyr Ser Ala Val Arg Met Ala Arg Leu Leu Ser Pro  
 145 150 155 160  
 Gly Ala Arg Leu Ile Thr Ile Glu Ile Asn Pro Asp Cys Ala Ala Ile  
 165 170 175  
 Thr Gln Arg Met Val Asp Phe Ala Gly Xaa Lys Asp Lys Val Thr Leu  
 180 185 190  
 Val Val Gly Ala Ser Gln Asp Ile Ile Pro Gln Leu Lys Lys Lys Tyr  
 195 200 205  
 Asp Val Asp Thr Leu Asp Met Val Phe Leu Asp His Trp Lys Asp Arg  
 210 215 220  
 Tyr Leu Pro Asp Thr Leu Leu Leu Glu Glu Cys Gly Leu Leu Arg Lys  
 225 230 235 240  
 Gly Thr Val Leu Leu Ala Asp Asn Val Ile Cys Pro Gly Ala Pro Asp  
 245 250 255  
 Phe Leu Ala His Val Arg Gly Ser Ser Cys Phe Glu Cys Thr His Tyr  
 260 265 270

1107

Gln Ser Phe Leu Glu Tyr Arg Glu Val Val Asp Gly Leu Glu Lys Ala  
 275 280 285

Ile Tyr Lys Gly Pro Gly Ser Glu Ala Gly Pro  
 290 295

&lt;210&gt; 1109

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1109

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Arg Leu Arg Asp Leu  
 1 5 10 15

Leu Thr Arg Arg Leu Thr Gly Ser Asn Tyr Pro Gly Leu Ser Ile Ser  
 20 25 30

Leu Arg Leu Thr Gly Ser Ser Ala Gln Glu Xaa Ala Ser Gly Val Ala  
 35 40 45

Leu Gly Glu Ala Pro Asp His Ser Tyr Glu Ser Leu Arg Val Thr Ser  
 50 55 60

Ala Gln Lys His Val Leu His Val Gln Leu Asn Arg Pro Asn Lys Arg  
 65 70 75 80

Asn Ala Met Asn Lys Val Phe Trp Arg Glu Met Val Glu Cys Phe Asn  
 85 90 95

Lys Ile Ser Arg Asp Ala Asp Cys Arg Ala Val Val Ile Ser Gly Ala  
 100 105 110

Gly Lys Met Phe Thr Ala Gly Ile Asp Leu Met Asp Met Ala Ser Asp  
 115 120 125

Ile Leu Gln Pro Lys Gly Asp Asp Val Ala Arg Ile Ser Trp Tyr Leu  
 130 135 140

Arg Asp Ile Ile Thr Arg Tyr Gln Glu Thr Phe Asn Val Ile Glu Arg  
 145 150 155 160

Cys Pro Lys Pro Val Ile Ala Ala Val His Gly Gly Cys Ile Gly Gly  
 165 170 175

1108

Gly Val Asp Leu Val Thr Ala Cys Asp Ile Arg Tyr Cys Ala Gln Asp  
 180 185 190  
 Ala Phe Phe Gln Val Lys Glu Val Asp Val Gly Leu Ala Ala Asp Val  
 195 200 205  
 Gly Thr Leu Gln Arg Leu Pro Lys Val Ile Gly Asn Gln Ser Leu Val  
 210 215 220  
 Asn Glu Leu Ala Phe Thr Ala Arg Lys Met Met Ala Asp Glu Ala Leu  
 225 230 235 240  
 Gly Ser Gly Leu Val Ser Arg Val Phe Pro Asp Lys Glu Val Met Leu  
 245 250 255  
 Asp Ala Ala Leu Ala Leu Ala Ala Glu Ile Ser Ser Lys Ser Pro Val  
 260 265 270  
 Ala Cys Arg Ala Pro Arg Ser Thr Cys Cys Ile Pro Ala Thr Ile Arg  
 275 280 285  
 Trp Pro Arg Ala Ser Thr Thr Trp Arg Pro Gly Thr  
 290 295 300

&lt;210&gt; 1110

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1110

Arg Ser Cys Ala Leu Val Cys Lys His Trp Tyr Arg Cys Leu His Gly  
 1 5 10 15  
 Asp Glu Asn Ser Glu Val Trp Arg Ser Leu Cys Ala Arg Ser Leu Ala  
 20 25 30  
 Glu Glu Ala Leu Arg Thr Asp Ile Leu Cys Asn Leu Pro Ser Tyr Lys  
 35 40 45  
 Ala Lys Ile Arg Ala Phe Gln His Ala Phe Ser Thr Asn Asp Cys Ser  
 50 55 60  
 Arg Asn Val Tyr Ile Lys Lys Asn Gly Phe Thr Leu His Arg Asn Pro  
 65 70 75 80  
 Ile Ala Gln Ser Thr Asp Gly Ala Arg Thr Lys Ile Gly Phe Ser Glu  
 85 90 95



1109

Gly Arg His Ala Trp Glu Val Trp Trp Glu Gly Pro Leu Gly Thr Val  
                   100                  105                  110  
 Ala Val Ile Gly Ile Ala Thr Lys Arg Ala Pro Met Gln Cys Gln Gly  
                   115                  120                  125  
 Tyr Val Ala Leu Leu Gly Ser Asp Asp Gln Ser Trp Gly Trp Asn Leu  
                   130                  135                  140  
 Val Asp Asn Asn Leu Leu His Asn Gly Glu Val Asn Gly Ser Phe Pro  
                   145                  150                  155                  160  
 Gln Cys Asn Asn Ala Pro Lys Tyr Gln Ile Gly Glu Arg Ile Arg Val  
                   165                  170                  175  
 Ile Leu Asp Met Glu Asp Lys Thr Leu Ala Phe Glu Arg Gly Tyr Glu  
                   180                  185                  190  
 Phe Leu Gly Val Ala Phe Arg Gly Leu Pro Lys Val Cys Leu Tyr Pro  
                   195                  200                  205  
 Ala Val Ser Ala Val Tyr Gly Asn Thr Glu Val Thr Leu Val Tyr Leu  
                   210                  215                  220  
 Gly Lys Pro Leu Asp Gly  
                   225                  230

&lt;210&gt; 1111

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1111

Pro Xaa Leu Thr Lys Gly Asn Lys Ser Trp Xaa Ser Thr Ala Val Xaa

1110

```

      1             5             10             15
Thr Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Pro
      20             25             30
Gln Lys Asn Leu Lys Asn Thr Val Phe Cys Ile Asp Ile Cys Thr Val
      35             40             45
Cys Val Cys Val Cys Glu Ile Lys Ile Arg Phe
      50             55

```

&lt;210&gt; 1112

&lt;211&gt; 425

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (228)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1112

```

Cys Ile Xaa Gly Phe Tyr Phe Ala Val Leu Ala Pro Gln Glu Leu Leu
  1             5             10             15
Ile Tyr Glu Met Ala Glu Asn Gly Lys Asn Cys Asp Gln Arg Arg Val
      20             25             30
Ala Met Asn Lys Glu His His Asn Gly Asn Phe Thr Asp Pro Ser Ser
      35             40             45
Val Asn Glu Lys Lys Arg Arg Glu Arg Glu Glu Arg Gln Asn Ile Val
      50             55             60
Leu Trp Arg Gln Pro Leu Ile Thr Leu Gln Tyr Phe Ser Leu Glu Ile
      65             70             75             80
Leu Val Ile Leu Lys Glu Trp Xaa Ser Lys Leu Trp His Arg Gln Ser
      85             90             95

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IIII

Ile Val Val Ser Phe Leu Leu Leu Leu Ala Val Leu Ile Ala Thr Tyr  
 100 105 110  
 Tyr Val Glu Gly Val His Gln Gln Tyr Val Gln Arg Ile Glu Lys Gln  
 115 120 125  
 Phe Leu Leu Tyr Ala Tyr Trp Ile Gly Leu Gly Ile Leu Ser Ser Val  
 130 135 140  
 Gly Leu Gly Thr Gly Leu His Thr Phe Leu Leu Tyr Leu Gly Pro His  
 145 150 155 160  
 Ile Ala Ser Val Thr Leu Ala Ala Tyr Glu Cys Asn Ser Val Asn Phe  
 165 170 175  
 Pro Glu Pro Pro Tyr Pro Asp Gln Ile Ile Cys Pro Asp Glu Glu Gly  
 180 185 190  
 Thr Glu Gly Thr Ile Ser Leu Trp Ser Ile Ile Ser Lys Val Arg Ile  
 195 200 205  
 Glu Ala Cys Met Trp Gly Ile Gly Thr Ala Ile Gly Glu Leu Pro Pro  
 210 215 220  
 Tyr Phe Met Xaa Arg Ala Ala Arg Leu Ser Gly Ala Glu Pro Asp Asp  
 225 230 235 240  
 Glu Glu Tyr Gln Glu Phe Glu Glu Met Leu Glu His Ala Glu Ser Ala  
 245 250 255  
 Gln Asp Phe Ala Ser Arg Ala Lys Leu Ala Val Gln Lys Leu Val Gln  
 260 265 270  
 Lys Val Gly Phe Phe Gly Ile Leu Ala Cys Ala Ser Ile Pro Asn Pro  
 275 280 285  
 Leu Phe Asp Leu Ala Gly Ile Thr Cys Gly His Phe Leu Val Pro Phe  
 290 295 300  
 Trp Thr Phe Phe Gly Ala Thr Leu Ile Gly Lys Ala Ile Ile Lys Met  
 305 310 315 320  
 His Ile Gln Lys Ile Phe Val Ile Ile Thr Phe Ser Lys His Ile Val  
 325 330 335  
 Glu Gln Met Val Ala Phe Ile Gly Ala Val Pro Gly Ile Gly Pro Ser  
 340 345 350  
 Leu Gln Lys Pro Phe Gln Glu Tyr Leu Glu Ala Gln Arg Gln Lys Leu  
 355 360 365

1112

His His Lys Ser Glu Met Gly Thr Pro Gln Gly Glu Asn Trp Leu Ser  
 370 375 380

Trp Met Phe Glu Lys Leu Val Val Val Met Val Cys Tyr Phe Ile Leu  
 385 390 395 400

Ser Ile Ile Asn Ser Met Ala Gln Ser Tyr Ala Lys Arg Ile Gln Gln  
 405 410 415

Arg Leu Asn Ser Glu Glu Lys Thr Lys  
 420 425

&lt;210&gt; 1113

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1113

Xaa Ile Glu Ile Asn Pro His Val Lys Gly Thr Lys Ala Gly Ala Pro  
 1 5 10 15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu  
 20 25 30

Phe Gly Thr Ser Ser Ser Thr Pro Ala Arg Pro Ser Ser His His Ser  
 35 40 45

Ala Cys Phe Leu Gly Pro Glu Ile Met Pro Leu Gly Leu Leu Trp Leu  
 50 55 60

Gly Leu Ala Leu Leu Gly Ala Leu His Ala Gln Ala Gln Asp Ser Thr  
 65 70 75 80

Ser Asp Leu Ile Pro Ala Pro Pro Leu Ser Lys Val Pro Leu Gln Gln  
 85 90 95

Asn Phe Gln Asp Asn Gln Phe Gln Gly Lys Trp Tyr Val Val Gly Leu  
 100 105 110

Ala Gly Asn Ala Ile Leu Arg Glu Asp Lys Asp Pro Gln Lys Met Tyr  
 115 120 125

Ala Thr Ile Tyr Glu Leu Lys Glu Asp Lys Ser Tyr Asn Val Thr Ser

1113

130	135	140
Val Leu Phe Arg Lys Lys Lys Cys Asp Tyr Trp Ile Arg Thr Phe Val		
145	150	155 160
Pro Gly Cys Gln Pro Gly Glu Phe Thr Leu Gly Asn Ile Lys Ser Tyr		
165	170	175
Pro Gly Leu Thr Ser Tyr Leu Val Arg Val Val Ser Thr Asn Tyr Asn		
180	185	190
Gln His Ala Met Val Phe Phe Lys Lys Val Ser Gln Asn Arg Glu Tyr		
195	200	205
Phe Lys Ile Thr Leu Tyr Gly Arg Thr Lys Glu Leu Thr Ser Glu Leu		
210	215	220
Lys Glu Asn Phe Ile Arg Phe Ser Lys Ser Leu Gly Leu Pro Glu Asn		
225	230	235 240
His Ile Val Phe Pro Val Pro Ile Asp Gln Cys Ile Asp Gly		
245	250	

&lt;210&gt; 1114

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1114

Ala Ser Glu Glu Ala Asn Pro Ala Gly Ile Arg Ala Ile Arg Thr Ala		
1	5	10 15
Thr Met Thr Val Gly Lys Ser Ser Lys Met Leu Gln His Ile Asp Tyr		
20	25	30
Arg Met Arg Cys Ile Leu Gln Asp Gly Arg Ile Phe Ile Gly Thr Phe		
35	40	45
Lys Ala Phe Asp Lys His Met Asn Leu Ile Leu Cys Asp Cys Asp Glu		
50	55	60
Phe Arg Lys Ile Lys Pro Lys Asn Ser Lys Gln Ala Glu Arg Glu Glu		
65	70	75 80
Lys Arg Val Leu Gly Leu Val Leu Leu Arg Gly Glu Asn Leu Val Ser		
85	90	95
Met Thr Val Glu Gly Pro Pro Pro Lys Asp Thr Gly Ile Ala Arg Val		
100	105	110

1114

Pro Leu Ala Gly Ala Ala Gly Gly Pro Gly Ile Gly Arg Ala Ala Gly  
 115 120 125  
 Arg Gly Ile Pro Ala Gly Val Pro Met Pro Gln Ala Pro Ala Gly Leu  
 130 135 140  
 Ala Gly Pro Val Arg Gly Val Gly Gly Pro Ser Gln Gln Val Met Thr  
 145 150 155 160  
 Pro Gln Gly Arg Gly Thr Val Ala Ala Ala Ala Ala Ala Thr Ala  
 165 170 175  
 Ser Ile Ala Gly Ala Pro Thr Gln Tyr Pro Pro Gly Arg Gly Gly Pro  
 180 185 190  
 Pro Pro Pro Met Gly Arg Gly Ala Pro Pro Pro Gly Met Met Gly Pro  
 195 200 205  
 Pro Pro Gly Met Arg Pro Pro Met Gly Pro Pro Met Gly Ile Pro Pro  
 210 215 220  
 Gly Arg Gly Thr Pro Met Gly Met Pro Pro Pro Gly Met Arg Pro Pro  
 225 230 235 240  
 Pro Pro Gly Met Arg Gly Leu Leu  
 245

&lt;210&gt; 1115

&lt;211&gt; 777

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1115

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1115

Leu Thr Lys Gly Xaa Lys Ser Trp Xaa Ser Thr Ala Val Xaa Thr Ala  
 1 5 10 15

Leu Glu Leu Val Xaa Pro Pro Gly Cys Arg Asn Ser Ala Arg Ala Xaa  
 20 25 30

Pro Pro Leu Gly Ser Ser Pro Leu Gly Arg Arg Phe Arg Val Leu Ser  
 35 40 45

Ser Leu Arg Arg Ser Pro Met Phe Glu Glu Lys Ala Ser Ser Pro Ser  
 50 55 60

Gly Lys Met Gly Gly Glu Glu Lys Pro Ile Gly Ala Gly Glu Glu Lys  
 65 70 75 80

Gln Lys Glu Gly Gly Lys Lys Lys Asn Lys Glu Gly Ser Gly Asp Gly  
 85 90 95

Gly Arg Ala Glu Leu Asn Pro Trp Pro Glu Tyr Ile Tyr Thr Arg Leu  
 100 105 110

Glu Met Tyr Asn Ile Leu Lys Ala Glu His Asp Ser Ile Leu Ala Glu  
 115 120 125

Lys Ala Glu Lys Asp Ser Lys Pro Ile Lys Val Thr Leu Pro Asp Gly  
 130 135 140

Lys Gln Val Asp Ala Glu Ser Trp Lys Thr Thr Pro Tyr Gln Ile Ala  
 145 150 155 160

Cys Gly Ile Ser Gln Gly Leu Ala Asp Asn Thr Val Ile Ala Lys Val  
 165 170 175

Asn Asn Val Val Trp Asp Leu Asp Arg Pro Leu Glu Glu Asp Cys Thr  
 180 185 190

Leu Glu Leu Leu Lys Phe Glu Asp Glu Glu Ala Gln Ala Val Tyr Trp  
 195 200 205

His Ser Ser Ala His Ile Met Gly Glu Ala Met Glu Arg Val Tyr Gly  
 210 215 220

1116

Gly Cys Leu Cys Tyr	Gly Pro Pro Ile	Glu Asn Gly Phe Tyr Tyr Asp
225	230	235 240
Met Tyr Leu Glu Glu Gly Gly Val Ser Ser Asn Asp Phe Ser Ser Leu		
245	250	255
Glu Ala Leu Cys Lys Lys Ile Ile Lys Glu Lys Gln Ala Phe Glu Arg		
260	265	270
Leu Glu Val Lys Lys Glu Thr Leu Leu Ala Met Phe Lys Tyr Asn Lys		
275	280	285
Phe Lys Cys Arg Ile Leu Asn Glu Lys Val Asn Thr Pro Thr Thr Thr		
290	295	300
Val Tyr Arg Cys Gly Pro Leu Ile Asp Leu Cys Arg Gly Pro His Val		
305	310	315 320
Arg His Thr Gly Lys Ile Lys Ala Leu Lys Ile His Lys Asn Ser Ser		
325	330	335
Thr Tyr Trp Glu Gly Lys Ala Asp Met Glu Thr Leu Gln Arg Ile Tyr		
340	345	350
Gly Ile Ser Phe Pro Asp Pro Lys Met Leu Lys Glu Trp Glu Lys Phe		
355	360	365
Gln Glu Glu Ala Lys Asn Arg Asp His Arg Lys Ile Gly Arg Asp Gln		
370	375	380
Glu Leu Tyr Phe Phe His Glu Leu Ser Pro Gly Ser Cys Phe Phe Leu		
385	390	395 400
Pro Lys Gly Ala Tyr Ile Tyr Asn Ala Leu Ile Glu Phe Ile Arg Ser		
405	410	415
Glu Tyr Arg Lys Arg Gly Phe Gln Glu Val Val Thr Pro Asn Ile Phe		
420	425	430
Asn Ser Arg Leu Trp Met Thr Ser Gly His Trp Gln His Tyr Ser Glu		
435	440	445
Asn Met Phe Ser Phe Glu Val Glu Lys Glu Leu Phe Ala Leu Lys Pro		
450	455	460
Met Asn Cys Pro Gly His Cys Leu Met Phe Asp His Arg Pro Arg Ser		
465	470	475 480
Trp Arg Glu Leu Pro Leu Arg Leu Ala Asp Phe Gly Val Leu His Arg		
485	490	495



1117

Asn Glu Leu Ser Gly Ala Leu Thr Gly Leu Thr Arg Val Arg Arg Phe  
 500 505 510

Gln Gln Asp Asp Ala His Ile Phe Cys Ala Met Glu Gln Ile Glu Asp  
 515 520 525

Glu Ile Lys Gly Cys Leu Asp Phe Leu Arg Thr Val Tyr Ser Val Phe  
 530 535 540

Gly Phe Ser Phe Lys Leu Asn Leu Ser Thr Arg Pro Glu Lys Phe Leu  
 545 550 555 560

Gly Asp Ile Glu Val Trp Asp Gln Ala Glu Lys Gln Leu Glu Asn Ser  
 565 570 575

Leu Asn Glu Phe Gly Glu Lys Trp Glu Leu Asn Ser Gly Asp Gly Ala  
 580 585 590

Phe Tyr Gly Pro Lys Ile Asp Ile Gln Ile Lys Asp Ala Ile Gly Arg  
 595 600 605

Tyr His Gln Cys Ala Thr Ile Gln Leu Asp Phe Gln Leu Pro Ile Arg  
 610 615 620

Phe Asn Leu Thr Tyr Val Ser His Asp Gly Asp Asp Lys Lys Arg Pro  
 625 630 635 640

Val Ile Val His Arg Ala Ile Leu Gly Ser Val Glu Arg Met Ile Ala  
 645 650 655

Ile Leu Thr Glu Asn Tyr Gly Gly Lys Trp Pro Phe Trp Leu Ser Pro  
 660 665 670

Arg Gln Val Met Val Val Pro Val Gly Pro Thr Cys Asp Glu Tyr Ala  
 675 680 685

Gln Lys Val Arg Gln Gln Phe His Asp Ala Lys Phe Met Ala Asp Ile  
 690 695 700

Asp Leu Asp Pro Gly Cys Thr Leu Asn Lys Lys Ile Arg Asn Ala Gln  
 705 710 715 720

Leu Ala Gln Tyr Asn Phe Ile Leu Val Val Gly Glu Lys Glu Lys Ile  
 725 730 735

Ser Gly Thr Val Asn Ile Arg Thr Arg Asp Asn Lys Val His Gly Glu  
 740 745 750

Arg Thr Ile Ser Glu Thr Ile Glu Arg Leu Gln Gln Leu Lys Glu Phe  
 755 760 765

1118

Arg Ser Lys Gln Ala Glu Glu Glu Phe  
 770 775

&lt;210&gt; 1116

&lt;211&gt; 360

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1116

Thr Thr Ser Ala Xaa Arg Trp Asp Gly Thr Arg Gly Arg Thr Arg Gly  
 1 5 10 15

Arg Thr Xaa Gly Phe Gly Asn Leu Ser Ile Thr Gln Xaa Trp Met Met  
 20 25 30

Trp Ala Met Val Ser Xaa Met Glu Ile Asp Gln Pro Ala Gly Thr Gly  
 35 40 45

Thr Leu Ser Arg Thr Asn Pro Pro Thr Gln Lys Pro Pro Ser Pro Pro  
 50 55 60

Met Ser Gly Arg Gly Thr Leu Gly Arg Asn Thr Pro Tyr Lys Thr Leu  
 65 70 75 80

Glu Pro Val Lys Pro Pro Thr Val Pro Asn Asp Tyr Met Thr Ser Pro  
 85 90 95

Ala Arg Leu Gly Ser Gln His Ser Pro Gly Arg Thr Ala Ser Leu Asn

1119

100	105	110
Gln Arg Pro Arg Thr His Ser Gly Ser Ser Gly Gly Ser Gly Ser Arg		
115	120	125
Glu Asn Ser Gly Ser Ser Ser Ile Gly Ile Pro Ile Ala Val Pro Thr		
130	135	140
Pro Ser Pro Pro Thr Ile Gly Pro Ala Ala Pro Gly Ser Ala Pro Gly		
145	150	155
Ser Gln Tyr Gly Thr Met Thr Arg Gln Ile Ser Arg His Asn Ser Thr		
	165	170
Thr Ser Ser Thr Ser Ser Gly Gly Tyr Arg Arg Thr Pro Ser Val Thr		
	180	185
Ala Gln Phe Ser Ala Gln Pro His Val Asn Gly Gly Pro Leu Tyr Ser		
	195	200
Gln Asn Ser Ile Ser Ile Ala Pro Pro Pro Pro Pro Met Pro Gln Leu		
	210	215
Thr Pro Gln Ile Pro Leu Thr Gly Phe Val Ala Arg Val Gln Glu Asn		
	225	230
Ile Ala Asp Ser Pro Thr Pro Pro Pro Pro Pro Pro Pro Asp Asp Ile		
	245	250
Pro Met Phe Asp Asp Ser Pro Pro Pro Pro Pro Pro Pro Val Asp		
	260	265
Tyr Glu Asp Glu Glu Ala Ala Val Val Gln Tyr Asn Asp Pro Tyr Ala		
	275	280
Asp Gly Asp Pro Ala Trp Ala Pro Lys Asn Tyr Ile Glu Lys Val Val		
	290	295
Ala Ile Tyr Asp Tyr Thr Lys Asp Lys Asp Asp Glu Leu Ser Phe Met		
	305	310
Glu Gly Ala Ile Ile Tyr Val Ile Lys Lys Asn Asp Asp Gly Trp Tyr		
	325	330
Glu Gly Val Cys Asn Arg Val Thr Gly Leu Phe Pro Gly Asn Tyr Val		
	340	345
Glu Ser Ile Met His Tyr Thr Asp		
	355	360

1120

&lt;210&gt; 1117

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1117

```

Pro Ala Arg Leu Gly Ile Thr Cys His Ser Pro Ala Ile Leu Ser Thr
 1             5             10             15

Ala Leu Trp Gly Gly Ser Ser Pro Ile Pro Asp Ala Pro Thr Thr Gln
          20             25             30

Trp Lys Val Thr Lys Pro Ala Pro Cys Pro Arg Pro Arg Arg Val Glu
          35             40             45

Pro Val Cys Ser Gly Leu Gln Ala Gln Ile Leu His Cys Tyr Arg Asp
 50             55             60

Arg Pro His Glu Val Leu Leu Cys Ser Asp Leu Val Lys Ala Tyr Gln
 65             70             75             80

Arg Cys Val Ser Ala Xaa His Lys Gly
          85

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&lt;210&gt; 1118

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1118

```

Arg Gly Val Val Asp Ser Glu Asp Leu Pro Leu Asn Ile Ser Arg Glu
 1             5             10             15

Met Leu Gln Gln Ser Lys Ile Leu Lys Val Ile Arg Lys Asn Ile Val
          20             25             30

Lys Lys Cys Leu Glu Leu Phe Ser Glu Leu Ala Glu Asp Lys Glu Asn
          35             40             45

Tyr Lys Lys Phe Tyr Glu Ala Phe Ser Lys Asn Leu Lys Leu Gly Ile
          50             55             60

His Glu Asp Ser Thr Asn Arg Arg Arg Leu Ser Glu Leu Leu Arg Tyr

```

1121

65		70		75		80
His Thr Ser Gln Ser Gly Asp Glu Met Thr Ser Leu Ser Glu Tyr Val						
	85		90		95	
Ser Arg Met Lys Glu Thr Gln Lys Ser Ile Tyr Tyr Ile Thr Gly Glu						
	100		105		110	
Ser Lys Glu Gln Val Ala Asn Ser Ala Phe Val Glu Arg Val Arg Lys						
	115		120		125	
Arg Gly Phe Glu Val Val Tyr Met Thr Glu Pro Ile Asp Glu Tyr Cys						
	130		135		140	
Val Gln Gln Leu Lys Glu Phe Asp Gly Lys Ser Leu Val Ser Val Thr						
	145		150		155	160
Lys Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu Glu Lys Lys Lys Met						
	165		170		175	
Glu Glu Ser Lys Ala Lys Phe Glu Asn Leu Cys Lys Leu Met Lys Glu						
	180		185		190	
Ile Leu Asp Lys Lys Val Glu Lys Val Thr Ile Ser Asn Arg Leu Val						
	195		200		205	
Ser Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala Asn						
	210		215		220	
Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr Met						
	225		230		235	240
Gly Tyr Met Met Ala Lys Lys His Leu Glu Ile Asn Pro Asp His Pro						
	245		250		255	
Ile Val Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Lys Asn Asp Lys						
	260		265		270	
Ala Val Lys Asp Leu Val Val Leu Leu Phe Glu Thr Ala Leu Leu Ser						
	275		280		285	
Ser Gly Phe Ser Leu Glu Asp Pro Gln Thr His Ser Asn Arg Ile Tyr						
	290		295		300	
Arg Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Glu Val Ala Ala						
	305		310		315	320
Glu Glu Pro Asn Ala Ala Val Pro Asp Glu Ile Pro Pro Leu Glu Gly						
	325		330		335	
Asp Glu Asp Ala Ser Arg Met Glu Glu Val Asp						

1122

340

345

&lt;210&gt; 1119

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (170)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1119

Pro Gly Ser Pro Asp Val Asn Arg Ala Val Val Arg Pro Pro Pro Pro  
 1 5 10 15

Pro Pro Pro Pro Pro Pro Ala Pro Gln Pro Thr Met Ser Arg Arg Lys  
 20 25 30

Gln Gly Lys Pro Gln His Leu Ser Lys Arg Glu Phe Ser Pro Glu Pro  
 35 40 45

Leu Glu Ala Ile Leu Thr Asp Asp Glu Pro Asp His Gly Pro Leu Gly  
 50 55 60

Ala Pro Glu Gly Asp His Asp Leu Leu Thr Cys Gly Gln Cys Gln Met  
 65 70 75 80

Asn Phe Pro Leu Gly Asp Ile Leu Ile Phe Ile Glu His Lys Arg Lys  
 85 90 95

Gln Cys Asn Gly Ser Leu Cys Leu Glu Lys Ala Val Asp Lys Pro Pro  
 100 105 110

Ser Pro Ser Pro Ile Glu Met Lys Lys Ala Ser Asn Pro Val Glu Val  
 115 120 125

Gly Ile Gln Val Thr Pro Glu Asp Asp Asp Cys Leu Ser Thr Ser Ser  
 130 135 140

Arg Gly Ile Cys Pro Lys Gln Glu His Ile Ala Asp Lys Leu Leu His  
 145 150 155 160

Trp Arg Gly Leu Ser Ser Pro Arg Ser Xaa Thr Trp Ser Ser Asn Pro  
 165 170 175

His Ala Trp Asp Glu Cys Arg Ile Cys Pro Ala Gly Ile Cys Lys Asp  
 180 185 190

1123

Glu Pro Ser Ser Tyr Thr Cys Thr Thr Cys Lys Gln Pro Phe Thr Ser  
           195                          200                          205  
 Ala Trp Phe Leu Leu Gln His Ala Gln Asn Thr His Gly Leu Arg Ile  
           210                          215                          220  
 Tyr Leu Glu Ser Glu His Gly Ser Pro Leu Thr Pro Arg Val Gly Ile  
 225                          230                          235                          240  
 Pro Ser Gly Leu Gly Ala Glu Cys Pro Ser Gln Pro Pro Leu His Gly  
                           245                          250                          255  
 Ile His Ile Ala Asp Asn Asn Pro Phe Asn Leu Leu Arg Ile Pro Gly  
                           260                          265                          270  
 Ser Val Ser Arg Glu Ala Ser Gly Leu Gly Arg Arg Ala Leu Ser Thr  
           275                          280                          285  
 His Ser Pro Pro Val  
           290

&lt;210&gt; 1120

&lt;211&gt; 190

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1120

Ala Ala Ala Ala Ala Gly Asp Pro Gly Ala Met Gly Arg Ala Arg Asp  
   1                          5                          10                          15  
 Ala Ile Leu Asp Ala Leu Glu Asn Leu Thr Ala Glu Glu Leu Lys Lys  
           20                          25                          30  
 Phe Lys Leu Lys Leu Leu Ser Val Pro Leu Arg Glu Gly Tyr Gly Arg  
           35                          40                          45  
 Ile Pro Arg Gly Ala Leu Leu Ser Met Asp Ala Leu Asp Leu Thr Asp  
           50                          55                          60  
 Lys Leu Val Ser Phe Tyr Leu Glu Thr Tyr Gly Ala Glu Leu Thr Ala  
   65                          70                          75                          80  
 Asn Val Leu Arg Asp Met Gly Leu Gln Glu Met Ala Gly Gln Leu Gln  
           85                          90                          95  
 Ala Ala Thr His Gln Gly Ser Gly Ala Ala Pro Ala Gly Ile Gln Ala  
           100                          105                          110  
 Pro Pro Gln Ser Ala Ala Lys Pro Gly Leu His Phe Ile Asp Gln His

1124

115	120	125
Arg Ala Ala Leu Ile Ala Arg Val Thr Asn Val Glu Trp Leu Leu Asp		
130	135	140
Ala Leu Tyr Gly Lys Val Leu Thr Asp Glu Gln Tyr Gln Ala Val Arg		
145	150	155
Pro Ser Pro Pro Thr Gln Ala Arg Cys Gly Ser Ser Ser Val Ser His		
165	170	175
Gln Pro Gly Thr Gly Pro Ala Arg Thr Cys Ser Ser Arg Pro		
180	185	190

<210> 1121  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<400> 1121
Gly Arg Lys Trp Phe Cys Pro Tyr Lys Thr Trp Arg Lys Ala Phe Leu
1 5 10 15
Ser Pro Arg Lys Arg His Val Met Ser Gln Ser Cys Gly Ala Arg Ala
20 25 30
Glu Val Gln Ala Thr Gly Ser Asp Gly Ala Pro Thr Lys Ala Leu Gly
35 40 45
Leu Val Arg Val Ala Ala Val Ser Ser Asp Ser Cys Val Val Pro Met
50 55 60
Val Glu Lys Lys Thr Ser Val Arg Ser Gln Asp Pro Gly Gln Arg Arg
65 70 75 80
Val Leu Asp Arg Ala Ala Arg Gln Arg Arg Ile Asn Arg Gln Leu Glu
85 90 95
Ala Leu Glu Asn Asp Asn Phe Gln Asp Asp Pro His Ala Gly Leu Pro
100 105 110
Gln Leu Gly Lys Arg Leu Pro Gln Phe Asp Asp Asp Ala Asp Thr Gly
115 120 125
Lys Lys Lys Lys Lys Thr Arg Gly Asp His Phe Lys Leu Arg Phe Arg
130 135 140
Lys Asn Phe Gln Ala Leu Leu Glu Glu Gln Asn Leu Ser Val Ala Glu
145 150 155 160



1125

Gly Pro Asn Tyr Leu Thr Ala Cys Ala Gly Pro Pro Ser Arg Pro Gln  
                           165                          170                          175

Arg Pro Phe Cys Ala Val Cys Gly Phe Pro Ser Pro Tyr Thr Cys Val  
                           180                          185                          190

Ser Cys Gly Ala Arg Tyr Cys Thr Val Arg Cys Leu Gly Thr His Gln  
                           195                          200                          205

Glu Thr Arg Cys Leu Lys Trp Thr Val  
                           210                          215

&lt;210&gt; 1122

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1122

Gly Asn Cys Gln Lys Cys Ala Phe Gly Tyr Ser Gly Leu Asp Cys Lys  
       1                          5                          10                          15

Asp Lys Phe Gln Leu Ile Leu Thr Ile Val Gly Thr Ile Ala Gly Ile  
                           20                          25                          30

Val Ile Leu Ser Met Ile Ile Ala Leu Ile Val Thr Ala Arg Ser Asn  
                           35                          40                          45

Asn Lys Thr Lys His Ile Glu Glu Glu Asn Leu Ile Asp Glu Asp Phe  
                           50                          55                          60

Gln Asn Leu Lys Leu Arg Ser Thr Gly Phe Thr Asn Leu Gly Ala Glu  
       65                          70                          75                          80

Gly Ser Val Phe Pro Lys Val Arg Ile Thr Ala Ser Arg Asp Ser Gln  
                           85                          90                          95

Met Gln Asn Pro Tyr Ser Ser His Ser Ser Met Pro Arg Pro Asp Tyr  
                           100                          105                          110

&lt;210&gt; 1123

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1126

&lt;400&gt; 1123

Gly Lys Leu Val Cys Gly Met Val Ser Tyr Leu Asn Asp Leu Pro Ser  
 1 5 10 15

Gln Arg Ile Gln Pro Gln Gln Val Ala Val Trp Pro Thr Met Val Asp  
 20 25 30

Ile Asn Ser Pro Glu Ser Leu Thr Glu Ala Tyr Lys Leu Arg Ala Ala  
 35 40 45

Arg Leu Val Glu Ile Ala Ala Lys Asn Leu Gln Lys Glu Val Ile His  
 50 55 60

Arg Lys Ser Lys Glu Val Ala Trp Asn Leu Thr Ser Val Asp Leu Val  
 65 70 75 80

Arg Ala Ser Glu Ala His Cys His Tyr Val Val Val Lys Leu Phe Ser  
 85 90 95

Glu Lys Leu Leu Lys Ile Gln Asp Lys Ala Ile Gln Ala Val Leu Arg  
 100 105 110

Ser Leu Cys Leu Leu Tyr Ser Leu Tyr Gly Ile Ser Gln Asn Ala Gly  
 115 120 125

Asp Phe Leu Gln Gly Ser Ile Met Thr Glu Pro Gln Ile Thr Gln Val  
 130 135 140

Asn Gln Arg Val Lys Glu Leu Leu Thr Leu Ile Arg Ser Asp Ala Val  
 145 150 155 160

Ala Leu Val Asp Ala Phe Asp Phe Gln Asp Val Thr Leu Gly Ser Val  
 165 170 175

Leu Gly Arg Tyr Asp Gly Asn Val Tyr Glu Asn Leu Phe Glu Trp Ala  
 180 185 190

Lys Asn Ser Pro Leu Asn Lys Ala Glu Val His Glu Ser Tyr Lys His  
 195 200 205

Leu Lys Ser Leu Gln Ser Lys Leu  
 210 215

&lt;210&gt; 1124

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1127

&lt;400&gt; 1124

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Pro Ser Pro Arg Pro Pro Asp Pro Glu Ser Ser Gln Leu Arg Pro Gly
 1           5           10           15

Gly Asp Gly Ala Glu Leu Arg Val Leu Val Asp Met Asp Gly Val Leu
      20           25           30

Ala Asp Phe Glu Ala Gly Leu Leu Arg Gly Phe Arg Arg Arg Phe Pro
      35           40           45

Glu Glu Pro His Val Pro Leu Glu Gln Arg Arg Gly Phe Leu Ala Arg
      50           55           60

Glu Gln Tyr Arg Ala Leu Arg Pro Asp Leu Ala Asp Lys Val Ala Ser
      65           70           75           80

Val Tyr Glu Ala Pro Gly Phe Phe Leu Asp Leu Glu Pro Ile Pro Gly
      85           90           95

Ala Leu Asp Ala Val Arg Glu Met Asn Asp Leu Pro Asp Thr Gln Val
      100          105          110

Phe Ile Cys Thr Ser Pro Leu Leu Lys Tyr His His Cys Val Gly Glu
      115          120          125

Lys Tyr Arg Trp Val Glu Gln His Leu Gly Pro Gln Phe Val Glu Arg
      130          135          140

Ile Ile Leu Thr Arg Asp Lys Thr Val Val Leu Gly Asp Leu Leu Ile
      145          150          155          160

Asp Asp Lys Asp Thr Val Arg Gly Gln Glu Glu Thr Pro Ser Trp Glu
      165          170          175

His Ile Leu Phe Thr Cys Cys His Asn Arg His Leu Val Leu Pro Pro
      180          185          190

Thr Arg Arg Arg Leu Leu Ser Trp Ser Asp Asn Trp Arg Glu Ile Leu
      195          200          205

Asp Ser Lys Arg Gly Ala Ala Gln Arg Glu
      210          215

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&lt;210&gt; 1125

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1125

1128

Met Arg Arg Arg Val Phe Phe Leu His Arg Cys Ser Ile Leu Val Phe  
 1 5 10 15  
 Leu Phe Pro Cys Lys Cys Asn Gln Met Pro Phe Tyr Met Trp Thr Tyr  
 20 25 30  
 Leu Tyr Trp Pro Asn Ile Phe Phe Leu Leu Ser Leu Phe Phe Phe Pro  
 35 40 45  
 Phe Phe Leu Leu Pro Leu Phe Leu Tyr Ser Phe Leu Phe Leu Phe Phe  
 50 55 60  
 Phe Phe Phe Ser Phe Phe Phe Gly Ser Cys Cys Tyr Pro Arg His Phe  
 65 70 75 80  
 Thr Ser Pro Ser Leu Lys Gly  
 85

&lt;210&gt; 1126

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (173)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1126

Pro Pro Leu Gly Lys Lys Xaa Glu Leu His Arg Gly Gly Gly Arg Ser  
 1 5 10 15  
 Arg Leu Glu Glu Phe Gln Met Arg Ala Arg Pro Arg Pro Arg Pro Leu  
 20 25 30  
 Trp Ala Thr Val Leu Ala Leu Gly Ala Leu Ala Gly Val Gly Val Gly  
 35 40 45  
 Gly Pro Asn Ile Cys Thr Thr Arg Gly Val Ser Ser Cys Gln Gln Cys  
 50 55 60  
 Leu Ala Val Ser Pro Met Cys Ala Trp Cys Ser Asp Glu Ala Leu Pro  
 65 70 75 80

1129

Leu Gly Ser Pro Arg Cys Asp Leu Lys Glu Asn Leu Leu Lys Asp Asn  
                             85                            90                            95  
 Cys Ala Pro Glu Ser Ile Glu Phe Pro Val Ser Glu Ala Arg Val Leu  
                             100                            105                            110  
 Glu Asp Arg Pro Leu Ser Asp Lys Gly Ser Gly Asp Ser Ser Gln Val  
                             115                            120                            125  
 Thr Gln Val Ser Pro Gln Arg Ile Ala Leu Arg Leu Arg Pro Asp Asp  
                             130                            135                            140  
 Ser Lys Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr Pro Val  
 145                            150                            155                            160  
 Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Xaa Gly  
                             165                            170

&lt;210&gt; 1127

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1127

Pro Gln Pro Phe Gln Gly Ser Gly Cys Val Ile Ala Ile Leu Gly Lys  
   1                            5                            10                            15  
 Arg Cys Ser Arg Pro Trp Arg Thr Trp Arg Gly Arg Thr Pro Ser Thr  
                             20                            25                            30  
 Arg His Ile Cys Ser Trp Cys Thr Met Val Ser Gly Thr Ser Ala Ala  
                             35                            40                            45  
 Val Glu Glu Tyr Ser Cys Glu Phe Gly Ser Ala Lys Tyr Tyr Ala Leu  
                             50                            55                            60  
 Cys Gly Phe Gly Gly Val Leu Ser Cys Gly Leu Thr His Thr Ala Val  
 65                            70                            75                            80  
 Val Pro Leu Asp Leu Val Lys Cys Arg Met Gln Val Asp Pro Gln Lys  
                             85                            90                            95  
 Tyr Lys Gly Ile Phe Asn Gly Phe Ser Val Thr Leu Lys Glu Asp Gly  
                             100                            105                            110  
 Val Arg Gly Leu Ala Lys Gly Trp Ala Pro Thr Phe Leu Gly Tyr Ser  
                             115                            120                            125  
 Met Gln Gly Leu Cys Lys Phe Gly Phe Tyr Glu Val Phe Lys Val Leu

1130

130	135	140
Tyr Ser Asn Met Leu Gly Glu Glu Asn Thr Tyr Leu Trp Arg Thr Ser		
145	150	155 160
Leu Tyr Leu Ala Ala Ser Ala Ser Ala Glu Phe Phe Ala Asp Ile Ala		
	165	170 175
Leu Ala Pro Met Glu Ala Ala Lys Val Arg Ile Gln Thr Gln Pro Gly		
	180	185 190
Tyr Ala Asn Thr Leu Arg Asp Ala Ala Pro Lys Met Tyr Lys Glu Glu		
	195	200 205
Gly Leu Lys Ala Phe Tyr Lys Gly Val Ala Pro Leu Trp Met Arg Gln		
	210	215 220
Ile Pro Tyr Thr Met Met Lys Phe Ala Cys Phe Glu Arg Thr Val Glu		
	225	230 235 240
Ala Leu Tyr Lys Phe Val Val Pro Lys Pro Arg Ser Glu Cys Ser Lys		
	245	250 255
Pro Glu Gln Leu Val Val Thr Phe Val Ala Gly Tyr Ile Ala Gly Val		
	260	265 270
Phe Cys Ala Ile Val Ser His Pro Ala Asp Ser Val Val Ser Val Leu		
	275	280 285
Asn Lys Glu Lys Gly Ser Ser Ala Ser Leu Val Leu Lys Arg Leu Gly		
	290	295 300
Phe Lys Gly Val Trp Lys Gly Leu Phe Ala Arg Ile Ile Met Ile Gly		
	305	310 315 320
Thr Leu Thr Ala Leu Gln Trp Phe Ile Tyr Asp Ser Val Lys Val Tyr		
	325	330 335
Phe Arg Leu Pro Arg Pro Pro Pro Pro Glu Met Pro Glu Ser Leu Lys		
	340	345 350
Lys Lys Leu Gly Leu Thr Gln		
	355	

&lt;210&gt; 1128

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1131

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (208)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (349)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1128

Leu Glu Pro Pro Ala Glu Pro Leu Gln Tyr Leu Ala Cys Tyr Arg Phe  
 1 5 10 15

His Cys Ser His Gln Leu Gly Asp Asn Met Trp Phe Leu Thr Thr Leu  
 20 25 30

Leu Leu Trp Val Pro Val Asp Gly Gln Val Asp Thr Thr Lys Ala Val  
 35 40 45

Ile Thr Leu Gln Pro Pro Trp Val Ser Val Phe Gln Glu Glu Thr Val  
 50 55 60

Thr Leu His Cys Glu Val Leu His Leu Pro Gly Ser Ser Ser Thr Gln  
 65 70 75 80

Trp Phe Leu Asn Gly Thr Ala Thr Gln Thr Ser Thr Pro Ser Tyr Arg  
 85 90 95

Ile Thr Ser Ala Ser Val Asn Asp Ser Gly Glu Tyr Arg Cys Gln Arg  
 100 105 110

Gly Leu Ser Gly Arg Ser Asp Pro Ile Gln Leu Glu Ile His Arg Gly  
 115 120 125

Trp Leu Leu Leu Gln Val Ser Ser Arg Val Phe Thr Glu Gly Glu Pro  
 130 135 140

Leu Ala Leu Arg Cys His Ala Trp Lys Asp Lys Leu Val Tyr Asn Val  
 145 150 155 160

Leu Tyr Tyr Arg Asn Gly Lys Ala Phe Lys Phe Phe His Trp Asn Ser  
 165 170 175

Asn Leu Thr Ile Leu Lys Thr Asn Ile Ser His Asn Gly Thr Tyr His  
 180 185 190

Cys Ser Gly Met Gly Lys His Arg Tyr Thr Ser Ala Gly Ile Ser Xaa  
 195 200 205

Thr Val Lys Glu Leu Phe Pro Ala Pro Val Leu Asn Ala Ser Val Thr

1132

210	215	220
Ser Pro Leu Leu Glu Gly Asn Leu Val Thr Leu Ser Cys Glu Thr Lys		
225	230	235 240
Leu Leu Leu Gln Arg Pro Gly Leu Gln Leu Tyr Phe Ser Phe Tyr Met		
	245	250 255
Gly Ser Lys Thr Leu Arg Gly Arg Asn Thr Ser Ser Glu Tyr Gln Ile		
	260	265 270
Leu Thr Ala Arg Arg Glu Asp Ser Gly Leu Tyr Trp Cys Glu Ala Ala		
	275	280 285
Thr Glu Asp Gly Asn Val Leu Lys Arg Ser Pro Glu Leu Glu Leu Gln		
	290	295 300
Val Leu Gly Leu Gln Leu Pro Thr Pro Val Trp Phe His Val Leu Phe		
305	310	315 320
Tyr Leu Ala Val Gly Ile Met Phe Leu Val Asn Thr Val Leu Trp Val		
	325	330 335
Thr Ile Arg Lys Glu Leu Lys Arg Lys Lys Lys Trp Xaa Leu Glu Ile		
	340	345 350
Ser Leu Asp Ser Gly His Glu Lys Lys Val Ile Ser Ser Leu Gln Glu		
	355	360 365
Asp Arg His Leu Glu Glu Glu Leu Lys Cys Gln Glu Gln Lys Glu Glu		
	370	375 380
Gln Leu Gln Glu Gly Val His Arg Lys Glu Pro Gln Gly Ala Thr		
385	390	395

&lt;210&gt; 1129

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



1133

&lt;400&gt; 1129

Glu Ile Leu Phe Ile Phe Xaa Xaa Phe Phe Lys Gly Leu Ser Asn Ser  
1 5 10 15

Ala Ala Ala Met Ala Pro Val Lys Lys Leu Val Val Lys Gly Gly Lys  
20 25 30

Lys Lys Lys Gln Val Leu Lys Phe Thr Leu Asp Cys Thr His Pro Val  
35 40 45

Glu Asp Gly Ile Met Asp Ala Ala Asn Phe Glu Gln Phe Leu Gln Glu  
50 55 60

Arg Ile Lys Val Asn Gly Lys Ala Gly Asn Leu Gly Gly Gly Val Val  
65 70 75 80

Thr Ile Glu Arg Ser Lys Ser Lys Ile Thr Val Thr Ser Glu Val Pro  
85 90 95

Phe Ser Lys Arg Tyr Leu Lys Tyr Leu Thr Lys Lys Tyr Leu Lys Lys  
100 105 110

Asn Asn Leu Arg Asp Trp Leu Arg Val Val Ala Asn Ser Lys Glu Ser  
115 120 125

Tyr Glu Leu Arg Tyr Phe Gln Ile Asn Gln Asp Glu Glu Glu Glu Glu  
130 135 140

Asp Glu Asp  
145

&lt;210&gt; 1130

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1130

Asn Cys Ser Pro Ala Phe Tyr Gly Ser Ser Leu Pro Cys Pro Gln Thr  
1 5 10 15

Gln Gln Lys Arg Arg Gly Arg Ile Arg Gly Leu Ser Arg Pro Ala Pro  
20 25 30

Leu Pro Thr Cys His Thr Arg Cys Glu Phe Glu His Ser Pro Glu Met  
35 40 45

Glu Thr Ser His Pro Gln Leu Asn Asn Gly Pro Phe Met Pro Thr Leu  
50 55 60

1134

Pro Thr Arg Arg Gly Gln Arg Cys Thr Arg Arg Pro Ser Ser Ser Pro  
 65 70 75 80

Ser Ser Ala Pro Ser His Tyr Ser Trp Phe Tyr  
 85 90

&lt;210&gt; 1131

&lt;211&gt; 510

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (228)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (352)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1131

Thr Ser Glu Glu Ser Arg Pro Arg Leu Ser Gln Leu Ser Val Thr Asp  
 1 5 10 15

Val Thr Thr Ser Ser Leu Arg Leu Asn Trp Glu Ala Pro Pro Gly Ala  
 20 25 30

Phe Asp Ser Phe Leu Leu Arg Phe Gly Val Pro Ser Pro Ser Thr Leu  
 35 40 45

Glu Pro His Pro Arg Pro Leu Leu Gln Arg Glu Leu Met Val Pro Gly  
 50 55 60

Thr Arg His Ser Ala Val Leu Arg Asp Leu Arg Ser Gly Thr Leu Tyr  
 65 70 75 80

Ser Leu Thr Leu Tyr Gly Leu Arg Gly Pro His Lys Ala Asp Ser Ile  
 85 90 95

Gln Gly Thr Ala Arg Thr Leu Ser Pro Val Leu Glu Ser Pro Arg Asp  
 100 105 110

Leu Gln Phe Ser Glu Ile Arg Glu Thr Ser Ala Lys Val Asn Trp Met  
 115 120 125

Pro Pro Pro Ser Arg Ala Asp Ser Phe Lys Val Ser Tyr Gln Leu Ala  
 130 135 140

1135

Asp Gly Gly Glu Pro Gln Ser Val Gln Val Asp Gly Gln Ala Arg Thr  
 145 150 155 160  
 Gln Lys Leu Gln Gly Leu Ile Pro Gly Ala Arg Tyr Glu Val Thr Val  
 165 170 175  
 Val Ser Val Arg Gly Phe Glu Glu Ser Glu Pro Leu Thr Gly Phe Leu  
 180 185 190  
 Thr Thr Val Pro Asp Gly Pro Thr Gln Leu Arg Ala Leu Asn Leu Thr  
 195 200 205  
 Glu Gly Phe Ala Val Leu His Trp Lys Pro Pro Gln Asn Pro Val Asp  
 210 215 220  
 Thr Tyr Asp Xaa Gln Val Thr Ala Pro Gly Ala Pro Pro Leu Gln Ala  
 225 230 235 240  
 Glu Thr Pro Gly Ser Ala Val Asp Tyr Pro Leu His Asp Leu Val Leu  
 245 250 255  
 His Thr Asn Tyr Thr Ala Thr Val Arg Gly Leu Arg Gly Pro Asn Leu  
 260 265 270  
 Thr Ser Pro Ala Ser Ile Thr Phe Thr Thr Gly Leu Glu Ala Pro Arg  
 275 280 285  
 Asp Leu Glu Ala Lys Glu Val Thr Pro Arg Thr Ala Leu Leu Thr Trp  
 290 295 300  
 Thr Glu Pro Pro Val Arg Pro Ala Gly Tyr Leu Leu Ser Phe His Thr  
 305 310 315 320  
 Pro Gly Gly Gln Thr Gln Glu Ile Leu Leu Pro Gly Gly Ile Thr Ser  
 325 330 335  
 His Gln Leu Leu Gly Leu Phe Pro Ser Thr Ser Tyr Asn Ala Arg Xaa  
 340 345 350  
 Gln Ala Met Trp Gly Gln Ser Leu Leu Pro Pro Val Ser Thr Ser Phe  
 355 360 365  
 Thr Thr Gly Gly Leu Arg Ile Pro Phe Pro Arg Asp Cys Gly Glu Glu  
 370 375 380  
 Met Gln Asn Gly Ala Gly Ala Ser Arg Thr Ser Thr Ile Phe Leu Asn  
 385 390 395 400  
 Gly Asn Arg Glu Arg Pro Leu Asn Val Phe Cys Asp Met Glu Thr Asp  
 405 410 415

1136

Gly Gly Gly Trp Leu Val Phe Gln Arg Arg Met Asp Gly Gln Thr Asp  
420 425 430

Phe Trp Arg Asp Trp Glu Asp Tyr Ala His Gly Phe Gly Asn Ile Ser  
435 440 445

Gly Glu Phe Trp Leu Gly Asn Glu Ala Leu His Ser Leu Thr Gln Ala  
450 455 460

Gly Asp Tyr Ser Met Arg Val Asp Leu Arg Ala Gly Asp Glu Ala Val  
465 470 475 480

Phe Ala Gln Tyr Asp Ser Phe His Val Asp Ser Ala Ala Glu Tyr Tyr  
485 490 495

Arg Leu His Leu Glu Gly Tyr His Gly Thr Ala Gly Thr Pro  
500 505 510

&lt;210&gt; 1132

&lt;211&gt; 430

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (182)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (216)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (408)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (410)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (414)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1137

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (420)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (428)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1132

Arg Thr Ala Asp Gln Thr Val Thr Ala Ala Leu Thr Lys Arg Ser Trp  
 1 5 10 15

Asn Ser Ser Ser Ser Pro Gln Arg Arg Thr Glu Gln Thr Ala Glu Thr  
 20 25 30

Met Glu Ser Pro Ser Ala Pro Pro His Arg Trp Cys Ile Pro Trp Gln  
 35 40 45

Arg Leu Leu Leu Thr Ala Ser Leu Leu Thr Phe Trp Asn Pro Pro Thr  
 50 55 60

Thr Ala Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly  
 65 70 75 80

Lys Glu Val Leu Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly  
 85 90 95

Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile  
 100 105 110

Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser  
 115 120 125

Gly Arg Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile  
 130 135 140

Ile Gln Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp  
 145 150 155 160

Leu Val Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu  
 165 170 175

Pro Lys Pro Ser Ile Xaa Ser Asn Asn Ser Lys Pro Val Glu Asp Lys  
 180 185 190

Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr  
 195 200 205

Leu Trp Trp Val Asn Asn Gln Xaa Leu Pro Val Ser Pro Arg Leu Gln

1138

210											215											220
Leu 225	Ser	Asn	Gly	Asn	Arg	Thr	Leu	Thr	Leu	Phe	Asn	Val	Thr	Arg	Asn	240						
230																	235					
Asp	Thr	Ala	Ser	Tyr	Lys	Cys	Glu	Thr	Gln	Asn	Pro	Val	Ser	Ala	Arg	255						
245																	250					
Arg	Ser	Asp	Ser	Val	Ile	Leu	Asn	Val	Leu	Tyr	Gly	Pro	Asp	Ala	Pro	270						
260																	265					
Thr	Ile	Ser	Pro	Leu	Asn	Thr	Ser	Tyr	Arg	Ser	Gly	Glu	Asn	Leu	Asn	285						
275																	280					
Leu	Ser	Cys	His	Ala	Ala	Ser	Asn	Pro	Pro	Ala	Gln	Tyr	Ser	Trp	Phe	300						
290																	295					
Val	Asn	Gly	Thr	Phe	Gln	Gln	Ser	Thr	Gln	Glu	Leu	Phe	Ile	Pro	Asn	320						
305																	310					
Ile	Thr	Val	Asn	Asn	Ser	Gly	Ser	Tyr	Thr	Cys	Gln	Ala	His	Asn	Ser	335						
325																	330					
Asp	Thr	Gly	Leu	Asn	Arg	Thr	Thr	Val	Thr	Thr	Ile	Thr	Val	Tyr	Ala	350						
340																	345					
Glu	Pro	Pro	Lys	Pro	Phe	Ile	Thr	Ser	Asn	Asn	Ser	Asn	Pro	Val	Glu	365						
355																	360					
Asp	Glu	Asp	Ala	Val	Ala	Leu	Thr	Cys	Glu	Pro	Glu	Ile	Gln	Asn	Thr	370						
370																	375					
Thr	Tyr	Leu	Trp	Trp	Val	Asn	Asn	Gln	Ser	Leu	Pro	Val	Ser	Pro	Arg	400						
385																	390					
Leu	His	Leu	Pro	Met	Thr	Thr	Xaa	Pro	Xaa	Leu	Tyr	Ser	Xaa	Ala	Gln	415						
405																	410					
Gly	Met	Met	Xaa	Asp	Pro	Met	Asn	Val	Glu	Ser	Xaa	Thr	Asn				430					
420																	425					

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<210> 1133
<211> 737
<212> PRT
<213> Homo sapiens
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<220>  
<221> SITE  
<222> (1)

1139

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (308)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (534)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (535)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1133

Xaa	His	Ala	Ser	Ala	Ala	Xaa	Pro	Thr	Val	Thr	Ala	Ala	Leu	Thr	Arg
1				5					10					15	

Ala	Phe	Leu	Glu	Leu	Lys	Leu	Ser	Thr	Lys	Arg	Trp	Thr	Glu	Lys	Thr
		20						25					30		

Ala	Glu	Thr	Met	Gly	Pro	Pro	Ser	Ala	Pro	Pro	Cys	Arg	Leu	His	Val
	35						40					45			

Pro	Trp	Lys	Glu	Val	Leu	Leu	Thr	Ala	Ser	Leu	Leu	Thr	Phe	Trp	Asn
	50					55					60				

Pro	Pro	Thr	Thr	Ala	Lys	Leu	Thr	Ile	Glu	Ser	Thr	Pro	Phe	Asn	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1140

65	70	75	80
Ala Glu Gly Lys	Glu Val Leu Leu Leu	Ala His Asn Leu	Pro Gln Asn
	85	90	95
Arg Ile Gly Tyr	Ser Trp Tyr Lys	Gly Glu Arg Val	Asp Gly Asn Ser
	100	105	110
Leu Ile Val Gly	Tyr Val Ile Gly	Thr Gln Gln Ala	Thr Pro Gly Pro
	115	120	125
Ala Tyr Ser Gly	Arg Glu Thr Ile Tyr	Pro Asn Xaa Ser	Leu Leu Ile
	130	135	140
Gln Asn Val Thr	Gln Asn Asp Thr	Gly Phe Tyr Thr	Leu Gln Val Ile
	145	150	155
Lys Ser Asp Leu	Val Asn Glu Glu	Ala Thr Gly Gln	Phe His Val Tyr
	165	170	175
Pro Glu Leu Pro	Lys Pro Ser Ile	Ser Xaa Asn Asn	Ser Asn Pro Val
	180	185	190
Glu Xaa Lys Asp	Ala Val Ala Phe	Thr Cys Glu Pro	Glu Val Gln Asn
	195	200	205
Thr Thr Tyr Leu	Trp Trp Val Asn	Gly Gln Ser Leu	Pro Val Ser Pro
	210	215	220
Arg Leu Gln Leu	Ser Asn Gly Asn	Met Thr Leu Thr	Leu Leu Ser Val
	225	230	235
Lys Arg Asn Asp	Ala Gly Ser Tyr	Glu Cys Glu Ile	Gln Asn Pro Ala
	245	250	255
Ser Ala Asn Arg	Ser Asp Pro Val	Thr Leu Asn Val	Leu Tyr Gly Pro
	260	265	270
Asp Gly Pro Thr	Ile Ser Pro Ser	Lys Ala Asn Tyr	Arg Pro Gly Glu
	275	280	285
Asn Leu Asn Leu	Ser Cys His Ala	Ala Ser Asn Pro	Pro Ala Gln Tyr
	290	295	300
Ser Trp Phe Xaa	Asn Gly Thr Phe	Gln Gln Ser Thr	Gln Glu Leu Phe
	305	310	315
Ile Pro Asn Ile	Thr Val Asn Asn	Ser Gly Ser Tyr	Thr Cys Gln Ala
	325	330	335
His Asn Ser Asp	Thr Gly Leu Asn	Arg Thr Thr Val	Thr Thr Ile Thr



1141

340	345	350
Val Tyr Ala Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn		
355	360	365
Pro Val Glu Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile		
370	375	380
Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val		
385	390	395
Ser Pro Arg Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu		
405	410	415
Ser Val Thr Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn		
420	425	430
Glu Leu Ser Val Asp His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr		
435	440	445
Gly Pro Asp Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro		
450	455	460
Gly Val Asn Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala		
465	470	475
Gln Tyr Ser Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu		
485	490	495
Leu Phe Ile Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys		
500	505	510
Gln Ala Asn Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr		
515	520	525
Ile Thr Val Ser Ala Xaa Xaa Pro Lys Pro Ser Ile Ser Ser Asn Asn		
530	535	540
Ser Lys Pro Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro		
545	550	555
Glu Ala Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu		
565	570	575
Pro Val Ser Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr		
580	585	590
Leu Phe Asn Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile		
595	600	605
Gln Asn Ser Val Ser Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val		

1142

610                      615                      620  
 Leu Tyr Gly Pro Asp Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr  
 625                      630                      635                      640  
 Leu Ser Gly Ala Asn Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro  
                     645                      650                      655  
 Ser Pro Gln Tyr Ser Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr  
                     660                      665                      670  
 Gln Val Leu Phe Ile Ala Lys Ile Thr Pro Asn Asn Asn Gly Thr Tyr  
                     675                      680                      685  
 Ala Cys Phe Val Ser Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val  
                     690                      695                      700  
 Lys Ser Ile Thr Val Ser Ala Ser Gly Thr Ser Pro Gly Leu Ser Ala  
 705                      710                      715                      720  
 Gly Ala Thr Val Gly Ile Met Ile Gly Val Leu Val Gly Val Ala Leu  
                     725                      730                      735  
 Ile

&lt;210&gt; 1134

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1134

Phe Gly Thr Xaa Arg Ser Val Val Leu Leu Leu Val Ala Val Arg Leu  
 1                      5                      10                      15  
 His Thr Leu Leu Ser Cys Pro Leu Glu Gln Pro Ala Gly Thr Glu Trp  
                     20                      25                      30  
 Ile Leu Glu Glu Gly Val Thr Thr Gly Pro Pro Arg Lys Pro Arg Ala  
                     35                      40                      45  
 Asp Ile Tyr Asn Leu Arg Ser Pro Asp Glu Phe Ile Val Gly Gln Asn  
                     50                      55                      60

1143

Gln Ala Leu Ile Glu Pro Gly  
65 70

&lt;210&gt; 1135

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1135

Gly Leu Arg Arg Leu Asp Ser Ala Ser Gly Thr Val Tyr Thr Ala Met  
1 5 10 15

Asp Val Ala Thr Gly Gln Glu Val Ala Ile Lys Gln Met Asn Leu Gln  
20 25 30

Gln Gln Pro Lys Lys Glu Leu Ile Ile Asn Glu Ile Leu Val Met Arg  
35 40 45

Glu Asn Lys Asn Pro Asn Ile Val Asn Tyr Leu Asp Ser Tyr Leu Val  
50 55 60

Gly Asp Glu Leu Trp Val Val Met Glu Tyr Leu Ala Gly Gly Ser Leu  
65 70 75 80

Thr Asp Val Val Thr Glu Thr Cys Met Asp Glu Gly Gln Ile Ala Ala  
85 90 95

Val Cys Arg Glu Xaa Leu Gln Ala Leu Glu Phe Leu His Ser Asn Gln  
100 105 110

Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Met Val Gly Thr Pro Tyr  
115 120 125

Trp Met Ala Pro Glu Val Val Thr Arg Lys Ala Tyr Gly Pro Lys Val  
130 135 140

Asp Ile Trp Ser Leu Gly Ile Met Ala Ile Glu Met Ile Glu Gly Glu  
145 150 155 160

Pro Pro Tyr Leu Asn Glu Asn Pro Leu Arg Ala Leu Tyr Leu Ile Ala  
165 170 175

Thr Asn Gly Thr Pro Glu Leu Gln Asn Pro Glu Lys Leu Ser Ala Ile  
180 185 190

1144

Phe Arg Asp Phe Leu Asn Arg Cys Leu Glu Met Asp Val Glu Lys Arg  
 195 200 205

Gly Ser Ala Lys Glu Leu Leu Gln His Gln Phe Leu Lys Ile Ala Lys  
 210 215 220

Pro Leu Ser Ser Leu Thr Pro Leu Ile Ala Ala Ala Lys Glu Ala Thr  
 225 230 235 240

Lys Asn Asn His

<210> 1136

<211> 166

<212> PRT

<213> Homo sapiens

<400> 1136

Arg Ala Glu Phe Gly Thr Ser Pro Arg Ala Arg Arg His Glu Cys Cys  
 1 5 10 15

Arg Phe Leu Asp Asp Asn Gln Ile Ile Thr Ser Ser Gly Asp Thr Thr  
 20 25 30

Cys Ala Leu Trp Asp Ile Glu Thr Gly Gln Gln Thr Val Gly Phe Ala  
 35 40 45

Gly His Ser Gly Asp Val Met Ser Leu Ser Leu Ala Pro Asp Gly Arg  
 50 55 60

Thr Phe Val Ser Gly Ala Cys Asp Ala Ser Ile Lys Leu Trp Asp Val  
 65 70 75 80

Arg Asp Ser Met Cys Arg Gln Thr Phe Ile Gly His Glu Ser Asp Ile  
 85 90 95

Asn Ala Val Ala Phe Phe Pro Asn Gly Tyr Ala Phe Thr Thr Gly Ser  
 100 105 110

Asp Asp Ala Thr Cys Arg Leu Phe Asp Leu Arg Ala Asp Gln Glu Leu  
 115 120 125

Leu Met Tyr Ser His Asp Asn Ile Ile Cys Gly Ile Thr Ser Val Ala  
 130 135 140

Phe Ser Arg Ser Asp Gly Cys Cys Ser Leu Ala Thr Thr Thr Ser Thr  
 145 150 155 160

1145

Ala Thr Ser Gly Met Pro

165

&lt;210&gt; 1137

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1137

Thr Asn Asn Lys Ser Leu Val Gln Leu Lys His Ile Ser Asn Asp Phe  
 1 5 10 15

Ser Lys Phe Lys Val Asp His Asp Arg Ile Ile Lys Asp Arg Lys Asp  
 20 25 30

Leu Ser Asn Leu Val Met Thr Ile Ile Ser Ile Phe Ala Glu Leu Lys  
 35 40 45

Ile Phe Asn Phe Ile Asn Met Leu Leu Gln Leu Pro Asp Leu Lys Lys  
 50 55 60

Lys Ser Phe Pro His Ser Gln Leu Lys Val Arg Thr Leu His Phe  
 65 70 75

&lt;210&gt; 1138

&lt;211&gt; 397

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1138

Pro Thr Arg Pro Ser Ser Val Ser Arg Arg Asp Lys Ser Lys Gln Val  
 1 5 10 15

Trp Glu Ala Val Leu Leu Pro Leu Ser Leu Leu Ser Met Met Asp Leu  
 20 25 30

Arg Asn Thr Pro Ala Lys Ser Leu Asp Lys Phe Ile Glu Asp Tyr Leu  
 35 40 45

Leu Pro Asp Thr Cys Phe Arg Met Gln Ile Asn His Ala Ile Asp Ile  
 50 55 60

Ile Cys Gly Phe Leu Lys Glu Arg Cys Phe Arg Gly Ser Ser Tyr Pro  
 65 70 75 80

Val Cys Val Ser Lys Val Val Lys Gly Gly Ser Ser Gly Lys Gly Thr  
 85 90 95

1146

Thr Leu Arg Gly Arg Ser Asp Ala Asp Leu Val Val Phe Leu Ser Pro  
 100 105 110  
 Leu Thr Thr Phe Gln Asp Gln Leu Asn Arg Arg Gly Glu Phe Ile Gln  
 115 120 125  
 Glu Ile Arg Arg Gln Leu Glu Ala Cys Gln Arg Glu Arg Ala Phe Ser  
 130 135 140  
 Val Lys Phe Glu Val Gln Ala Pro Arg Trp Gly Asn Pro Arg Ala Leu  
 145 150 155 160  
 Ser Phe Val Leu Ser Ser Leu Gln Leu Gly Glu Gly Val Glu Phe Asp  
 165 170 175  
 Val Leu Pro Ala Phe Asp Ala Leu Asp Phe Ala Arg Thr Gly Gln Leu  
 180 185 190  
 Thr Gly Gly Tyr Lys Pro Asn Pro Gln Ile Tyr Val Lys Leu Ile Glu  
 195 200 205  
 Glu Cys Thr Asp Leu Gln Lys Glu Gly Glu Phe Ser Thr Cys Phe Thr  
 210 215 220  
 Glu Leu Gln Arg Asp Phe Leu Lys Gln Arg Pro Thr Lys Leu Lys Ser  
 225 230 235 240  
 Leu Ile Arg Leu Val Lys His Trp Tyr Gln Asn Cys Lys Lys Lys Leu  
 245 250 255  
 Gly Lys Leu Pro Pro Gln Tyr Ala Leu Glu Leu Leu Thr Val Tyr Ala  
 260 265 270  
 Trp Glu Arg Gly Ser Met Lys Thr His Phe Asn Thr Ala Gln Gly Phe  
 275 280 285  
 Arg Thr Val Leu Glu Leu Val Ile Asn Tyr Gln Gln Leu Cys Ile Tyr  
 290 295 300  
 Trp Thr Lys Tyr Tyr Asp Phe Lys Asn Pro Ile Ile Glu Lys Tyr Leu  
 305 310 315 320  
 Arg Arg Gln Leu Thr Lys Pro Arg Pro Val Ile Leu Asp Pro Ala Asp  
 325 330 335  
 Pro Thr Gly Asn Leu Gly Gly Gly Asp Pro Lys Gly Trp Arg Gln Leu  
 340 345 350  
 Ala Gln Glu Ala Glu Ala Trp Leu Asn Tyr Pro Cys Phe Lys Asn Trp  
 355 360 365

1147

Asp Gly Ser Pro Val Ser Ser Trp Ile Leu Leu Val Arg Pro Pro Ala  
 370 375 380

Ser Ser Leu Pro Phe Ile Pro Ala Pro Leu His Glu Ala  
 385 390 395

<210> 1139

<211> 180

<212> PRT

<213> Homo sapiens

<400> 1139

Phe Leu Leu Ser Asn Ala Arg Trp Ser Asn Arg Pro Asp Thr Ala Thr  
 1 5 10 15

Ala Leu Ala Gly Gly Ala Val Met Pro Glu Leu Ile Leu Ser Pro Ala  
 20 25 30

Thr Ala Pro His Pro Leu Lys Met Phe Ala Cys Ser Lys Phe Val Ser  
 35 40 45

Thr Pro Ser Leu Val Lys Ser Thr Ser Gln Leu Leu Ser Arg Pro Leu  
 50 55 60

Ser Ala Val Val Leu Lys Arg Pro Glu Ile Leu Thr Asp Glu Ser Leu  
 65 70 75 80

Ser Ser Leu Ala Val Ser Cys Pro Leu Thr Ser Leu Val Ser Ser Arg  
 85 90 95

Ser Phe Gln Thr Ser Ala Ile Ser Arg Asp Ile Asp Thr Ala Ala Lys  
 100 105 110

Phe Ile Gly Ala Gly Ala Ala Thr Val Gly Val Ala Gly Ser Gly Ala  
 115 120 125

Gly Ile Gly Thr Val Phe Gly Ser Leu Ile Ile Gly Tyr Ala Arg Asn  
 130 135 140

Pro Ser Leu Lys Gln Gln Leu Phe Ser Tyr Ala Ile Leu Gly Phe Ala  
 145 150 155 160

Leu Ser Glu Ala Met Gly Leu Phe Cys Leu Met Val Ala Phe Leu Ile  
 165 170 175

Leu Phe Ala Met  
 180

1148

&lt;210&gt; 1140

&lt;211&gt; 484

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1140

Trp Leu Leu Arg Ser Pro Gly Lys Leu Thr Ala Arg Glu Arg Ile Ser  
 1 5 10 15

Leu Leu Leu Asp Pro Gly Ser Phe Xaa Glu Ser Asp Met Phe Val Glu  
 20 25 30

His Arg Cys Ala Asp Phe Gly Met Ala Ala Asp Lys Asn Lys Phe Pro  
 35 40 45

Gly Asp Ser Val Val Thr Gly Arg Gly Arg Ile Asn Gly Arg Leu Val  
 50 55 60

Tyr Val Phe Ser Gln Asp Phe Thr Val Phe Gly Gly Ser Leu Ser Gly  
 65 70 75 80

Ala His Ala Gln Lys Ile Cys Lys Ile Met Asp Gln Ala Ile Thr Val  
 85 90 95

Gly Ala Pro Val Ile Gly Leu Asn Asp Ser Gly Gly Ala Arg Ile Gln  
 100 105 110

Glu Gly Val Glu Ser Leu Ala Gly Tyr Ala Asp Ile Phe Leu Arg Asn  
 115 120 125

Val Thr Ala Ser Gly Val Ile Pro Gln Ile Ser Leu Ile Met Gly Pro  
 130 135 140

Cys Ala Gly Gly Ala Val Tyr Ser Pro Ala Leu Thr Asp Phe Thr Phe  
 145 150 155 160

Met Val Lys Asp Thr Ser Tyr Leu Phe Ile Thr Gly Pro Asp Val Val  
 165 170 175

Lys Ser Val Thr Asn Glu Asp Val Thr Gln Glu Glu Leu Gly Gly Ala  
 180 185 190

Lys Thr His Thr Thr Met Ser Gly Val Ala His Arg Ala Phe Glu Asn  
 195 200 205



Asp Val Asp Ala Leu Cys Asn Leu Arg Asp Phe Phe Asn Tyr Leu Pro  
 210 215 220  
 Leu Ser Ser Gln Asp Pro Ala Pro Val Arg Glu Cys His Asp Pro Ser  
 225 230 235 240  
 Asp Arg Leu Val Pro Glu Leu Asp Thr Ile Val Pro Leu Glu Ser Thr  
 245 250 255  
 Lys Ala Tyr Asn Met Val Asp Ile Ile His Ser Val Val Asp Glu Arg  
 260 265 270  
 Glu Phe Phe Glu Ile Met Pro Asn Tyr Ala Lys Asn Ile Ile Val Gly  
 275 280 285  
 Phe Ala Arg Met Asn Gly Arg Thr Val Gly Ile Val Gly Asn Gln Pro  
 290 295 300  
 Lys Val Ala Ser Gly Cys Leu Asp Ile Asn Ser Ser Val Lys Gly Ala  
 305 310 315 320  
 Arg Phe Val Arg Phe Cys Asp Ala Phe Asn Ile Pro Leu Ile Thr Phe  
 325 330 335  
 Val Asp Val Pro Gly Phe Leu Pro Gly Thr Ala Gln Glu Tyr Gly Gly  
 340 345 350  
 Ile Ile Arg His Gly Ala Lys Leu Leu Tyr Ala Phe Ala Glu Ala Thr  
 355 360 365  
 Val Pro Lys Val Thr Val Ile Thr Arg Lys Ala Tyr Gly Gly Ala Tyr  
 370 375 380  
 Asp Val Met Ser Ser Lys His Leu Cys Gly Asp Thr Asn Tyr Ala Trp  
 385 390 395 400  
 Pro Thr Ala Glu Ile Ala Val Met Gly Ala Lys Gly Ala Val Glu Ile  
 405 410 415  
 Ile Phe Lys Gly His Glu Asn Val Glu Ala Ala Gln Ala Glu Tyr Ile  
 420 425 430  
 Glu Lys Phe Ala Asn Pro Phe Pro Ala Ala Val Arg Gly Phe Val Asp  
 435 440 445  
 Asp Ile Ile Gln Pro Ser Ser Thr Arg Ala Arg Ile Cys Cys Asp Leu  
 450 455 460  
 Asp Val Leu Ala Ser Lys Lys Val Gln Arg Pro Trp Arg Lys His Ala  
 465 470 475 480

1150

Asn Ile Pro Leu

&lt;210&gt; 1141

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1141

Leu	Xaa	Glu	Leu	Glu	Arg	Tyr	Val	Thr	Ser	Cys	Leu	Arg	Lys	Lys	Arg
1				5					10					15	

Lys	Pro	Gln	Ala	Glu	Lys	Val	Asp	Val	Ile	Ala	Gly	Ser	Ser	Lys	Met
		20					25						30		

Lys	Gly	Phe	Ser	Ser	Ser	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Ser	Ser	Ser
		35					40					45			

Ser	Asp	Ser	Glu	Xaa	Xaa	Glu	Thr	Gly	Pro	Ala
	50					55				

&lt;210&gt; 1142

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1142

Ser	Gly	Tyr	Lys	Thr	Ile	Ser	Ala	Met	Gln	Thr	Ile	Lys	Cys	Val	Val
1				5					10				15		

Val	Gly	Asp	Gly	Ala	Val	Gly	Lys	Thr	Cys	Leu	Leu	Ile	Ser	Tyr	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1151

20	25	30
Thr Asn Lys Phe Pro Ser Glu Tyr Val Pro Thr Val Phe Asp Asn Tyr		
35	40	45
Ala Val Thr Val Met Ile Gly Gly Glu Pro Tyr Thr Leu Gly Leu Phe		
50	55	60
Asp Thr Ala Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr		
65	70	80
Pro Gln Thr Asp Val Phe Leu Val Cys Phe Ser Val Val Ser Pro Ser		
85	90	95
Ser Phe Glu Asn Val Lys Glu Lys Trp Val Pro Glu Ile Thr His His		
100	105	110
Cys Pro Lys Thr Pro Phe Leu Leu Val Gly Thr Gln Ile Asp Leu Arg		
115	120	125
Asp Asp Pro Ser Thr Ile Glu Lys Leu Ala Lys Asn Lys Gln Lys Pro		
130	135	140
Ile Thr Pro Glu Thr Ala Glu Lys Leu Ala Arg Asp Leu Lys Ala Val		
145	150	160
Lys Tyr Val Glu Cys Ser Ala Leu Thr Gln Lys Gly Leu Lys Asn Val		
165	170	175
Phe Asp Glu Ala Ile Leu Ala Ala Leu Glu Pro Pro Glu Pro Lys Lys		
180	185	190
Ser Arg Arg Cys Val Leu Leu		
195		

&lt;210&gt; 1143

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1143

Gly Asp Leu Asp Cys Pro Asp Trp Val Leu Ala Glu Ile Ser Thr Leu		
1	5	10
Ala Lys Met Tyr Glu Lys Ile Leu Lys Leu Thr Ala Asp Ala Lys Phe		
20	25	30
Glu Ser Gly Asp Val Lys Ala Thr Val Ala Val Leu Ser Phe Ile Leu		
35	40	45

1152

Ser Ser Ala Ala Lys His Ser Val Asp Gly Glu Ser Leu Ser Ser Glu  
 50 55 60  
 Leu Gln Gln Leu Gly Leu Pro Lys Glu His Ala Ala Ser Leu Cys Arg  
 65 70 75 80  
 Cys Tyr Glu Glu Lys Gln Ser Pro Leu Gln Lys His Leu Arg Val Cys  
 85 90 95  
 Ser Leu Arg Met Asn Arg Leu Ala Gly Val Gly Trp Arg Val Asp Tyr  
 100 105 110  
 Thr Leu Ser Ser Ser Leu Leu Gln Ser Val Glu Glu Pro Met Val His  
 115 120 125  
 Leu Arg Leu Glu Val Ala Ala Ala Pro Gly Thr Pro Ala Gln Pro Val  
 130 135 140  
 Ala Met Ser Leu Ser Ala Asp Lys Phe Gln Val Leu Leu Ala Glu Leu  
 145 150 155 160  
 Lys Gln Ala Gln Thr Leu Met Ser Ser Leu Gly  
 165 170

&lt;210&gt; 1144

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1144

Gln Trp Arg Gln Gly Val Gln Gly Arg Ser Ala Ser Gly Thr Ser Thr  
 1 5 10 15

1153

Cys Arg Val Ala Arg Xaa Gly Gln Asp Trp Pro Ala Ala Ser Pro Gly  
                   20                  25                  30  
 Val Asn Leu Arg Asn Xaa Phe Xaa Pro Pro Leu Leu Leu Ala Pro Val  
                   35                  40                  45  
 Pro Thr Pro Val Ala Pro Ser Leu Gly Ser Pro Leu Leu Leu Ser His  
                   50                  55                  60  
 Pro Glu Arg Gln Ser Gly Pro Val Thr Gly Gly Ala Gly Glu Gly His  
                   65                  70                  75                  80  
 Arg Cys Ala Ser Pro Gln Thr Val Cys Gln Val Ser Glu Leu Val Thr  
                   85                  90                  95  
 Arg Pro Ala Ala Gln Pro Ser Ala Ala Ala Gln Pro Ala Ala Pro Ala  
                   100                  105                  110  
 Gly Gly Arg Thr Pro Gly Arg Ala Gly Pro His Leu Pro Ile Tyr Lys  
                   115                  120                  125  
 Ile Gly Gln Gly Asn Met Lys Ala Asp Leu Gln Ala Ala Ala Thr Ala  
                   130                  135                  140  
 Lys Pro Gly Lys Ser Gln Gln  
                   145                  150

&lt;210&gt; 1145

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1145

Ala Asp Ile Ala Gly Val Leu Ala Ile Arg Pro Asp Glu Leu Arg Phe  
                   1                  5                  10                  15  
 Arg Tyr Ser Met Val Ala Tyr Trp Arg Gln Ala Gly Leu Ser Tyr Ile  
                   20                  25                  30  
 Arg Tyr Ser Gln Ile Cys Ala Lys Ala Val Arg Asp Ala Leu Lys Thr  
                   35                  40                  45  
 Glu Phe Lys Ala Asn Ala Glu Lys Thr Ser Gly Ser Asn Val Lys Ile  
                   50                  55                  60  
 Val Lys Val Lys Lys Glu  
                   65                  70

1154

&lt;210&gt; 1146

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1146

Leu His Ala Asn Gln Val Ile His Arg Asp Ile Lys Ser Asp Asn Val  
 1 5 10 15

Leu Leu Gly Met Glu Gly Ser Val Lys Leu Thr Asp Phe Gly Phe Cys  
 20 25 30

Ala Gln Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Met Val Gly Thr  
 35 40 45

Pro Tyr Trp Met Ala Pro Glu Xaa Val Thr Arg Lys Ala Tyr Gly Pro  
 50 55 60

Lys Val Asp Ile Trp Ser Leu Gly Ile Met Ala Ile Glu Met Val Glu  
 65 70 75 80

Gly Glu Pro Pro Tyr Leu Asn Glu Asn Pro Leu Arg Ala Leu Tyr Leu  
 85 90 95

Ile Ala Thr Asn Gly Thr Pro Glu Leu Gln Asn Pro Glu Lys Leu Ser  
 100 105 110

Pro Ile Phe Arg Asp Phe Leu Asn Arg Cys Leu Glu Met Asp Val Glu  
 115 120 125

Lys Arg Gly Ser Ala Lys Glu Leu Leu Gln His Pro Phe Leu Lys Leu  
 130 135 140

Ala Lys Pro Leu Ser Ser Leu Thr Pro Leu Ile Met Ala Ala Lys Glu  
 145 150 155 160

Ala Met Lys Ser Asn Arg  
 165

&lt;210&gt; 1147

&lt;211&gt; 420

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1155

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (203)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1147

Cys Pro Pro Phe Ser Val Arg Val Pro Pro Trp Ala Gly Leu Ala Leu  
 1 5 10 15  
 Leu Pro Ser Pro Ser Leu Met Ala Leu Leu Arg Arg Pro Thr Val Ser  
 20 25 30  
 Ser Asp Leu Glu Asn Ile Asp Thr Gly Val Asn Ser Lys Val Lys Ser  
 35 40 45  
 His Val Thr Ile Arg Arg Thr Val Leu Glu Glu Ile Gly Asn Arg Val  
 50 55 60  
 Thr Thr Arg Ala Ala Gln Val Ala Lys Lys Ala Gln Asn Thr Lys Val  
 65 70 75 80  
 Pro Val Gln Pro Thr Lys Thr Thr Asn Val Asn Lys Gln Leu Lys Pro  
 85 90 95  
 Thr Ala Ser Val Lys Pro Val Gln Met Glu Lys Leu Ala Pro Lys Gly  
 100 105 110  
 Pro Ser Pro Thr Pro Glu Asp Val Ser Met Lys Glu Glu Asn Leu Cys  
 115 120 125  
 Gln Ala Phe Ser Asp Ala Leu Leu Cys Lys Ile Glu Asp Ile Asp Asn  
 130 135 140  
 Glu Asp Trp Glu Asn Pro Gln Leu Cys Ser Asp Tyr Val Lys Asp Ile  
 145 150 155 160  
 Tyr Gln Tyr Leu Arg Gln Leu Glu Val Leu Gln Ser Ile Asn Pro His  
 165 170 175  
 Phe Leu Asp Gly Arg Asp Ile Asn Gly Arg Met Arg Ala Ile Leu Val  
 180 185 190  
 Asp Trp Leu Val Gln Val His Ser Lys Phe Xaa Leu Leu Gln Glu Thr  
 195 200 205  
 Leu Tyr Met Cys Val Gly Ile Met Asp Arg Phe Leu Gln Val Gln Pro  
 210 215 220  
 Val Ser Arg Lys Lys Leu Gln Leu Val Gly Ile Thr Ala Leu Leu Leu  
 225 230 235 240

1156

Ala Ser Lys Tyr Glu Glu Met Phe Ser Pro Asn Ile Glu Asp Phe Val  
                   245                                  250                                  255  
 Tyr Ile Thr Asp Asn Ala Tyr Thr Ser Ser Gln Ile Arg Glu Met Glu  
                   260                                  265                                  270  
 Thr Leu Ile Leu Lys Glu Leu Lys Phe Glu Leu Gly Arg Pro Leu Pro  
                   275                                  280                                  285  
 Leu His Phe Leu Arg Arg Ala Ser Lys Ala Gly Glu Val Asp Val Glu  
                   290                                  295                                  300  
 Gln His Thr Leu Ala Lys Tyr Leu Met Glu Leu Thr Leu Ile Asp Tyr  
                   305                                  310                                  315                                  320  
 Asp Met Val His Tyr His Pro Ser Lys Val Ala Ala Ala Ala Ser Cys  
                   325                                  330                                  335  
 Leu Ser Gln Lys Val Leu Gly Gln Gly Lys Trp Asn Leu Lys Gln Gln  
                   340                                  345                                  350  
 Tyr Tyr Thr Gly Tyr Thr Glu Asn Glu Val Leu Glu Val Met Gln His  
                   355                                  360                                  365  
 Met Ala Lys Asn Val Val Lys Val Asn Glu Asn Leu Thr Lys Phe Ile  
                   370                                  375                                  380  
 Ala Ile Lys Asn Lys Tyr Ala Ser Ser Lys Leu Leu Lys Ile Ser Met  
                   385                                  390                                  395                                  400  
 Ile Pro Gln Leu Asn Ser Lys Ala Val Lys Asp Leu Ala Ser Pro Leu  
                   405                                  410                                  415  
 Ile Gly Arg Ser  
                   420

&lt;210&gt; 1148

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (244)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1148

Gln Ser Asn Ala Val Trp Leu Leu Gly His Leu His Leu Ser Thr Leu



1157

1	5	10	15
Ser Ser Ser Gln Ser Arg Ala Ser Val Pro Thr Asp Tyr Ser Tyr Leu	20	25	30
Pro Glu Ser Ser Phe Ile Gly Ala Ala Ile Gly Phe Phe Ile Thr Gly	35	40	45
Gly Lys Lys Gly Pro Glu Ser Val Pro Pro Ser Leu Leu Lys Val Val	50	55	60
Met Lys Pro Ile Ala Thr Val Gly Glu Ser Tyr Gln Tyr Pro Pro Val	65	70	75
Asn Trp Ala Ala Leu Leu Ser Pro Leu Met Arg Leu Asn Phe Gly Glu	85	90	95
Glu Ile Gln Gln Leu Cys Leu Glu Ile Met Val Thr Gln Ala Gln Ser	100	105	110
Ser Gln Asn Ala Ala Ala Leu Leu Gly Leu Trp Val Thr Pro Pro Leu	115	120	125
Ile His Ser Leu Ser Leu Asn Thr Lys Arg Tyr Leu Leu Ile Ser Ala	130	135	140
Pro Leu Trp Ile Lys His Ile Ser Asp Glu Gln Ile Leu Gly Phe Val	145	150	155
Glu Asn Leu Met Val Ala Val Phe Lys Ala Ala Ser Pro Leu Gly Ser	165	170	175
Pro Glu Leu Cys Pro Ser Ala Leu His Gly Leu Ser Gln Ala Met Lys	180	185	190
Leu Pro Ser Pro Ala His His Leu Trp Ser Leu Leu Ser Glu Ala Thr	195	200	205
Gly Lys Ile Phe Asp Leu Leu Pro Asn Lys Ile Arg Arg Lys Asp Leu	210	215	220
Glu Leu Tyr Ile Ser Ile Ala Lys Cys Leu Leu Glu Met Thr Asp Asp	225	230	235
Asp Ala Asn Xaa Asp Arg Pro Gly Tyr	245		

&lt;210&gt; 1149

&lt;211&gt; 239

1158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1149

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Arg Asp Pro Pro Arg Pro Val Gln Ser Gly Leu Gly Ala Ala Gly Thr
 1             5             10             15

Leu Ser Trp Leu Pro Pro Pro Glu Gln Pro Val Leu Val Pro Arg Leu
 20             25             30

Pro Ala Pro Arg Pro Val Met Thr Leu Arg Pro Ser Leu Leu Pro Leu
 35             40             45

His Leu Leu Leu Leu Leu Leu Ser Ala Ala Val Cys Arg Ala Glu
 50             55             60

Ala Gly Leu Glu Thr Glu Ser Pro Val Arg Thr Leu Gln Val Glu Thr
 65             70             75             80

Leu Val Glu Pro Pro Glu Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp
 85             90             95

Thr Leu His Ile His Tyr Thr Gly Ser Leu Val Asp Gly Arg Ile Ile
100             105             110

Asp Thr Ser Leu Thr Arg Asp Pro Leu Val Ile Glu Leu Gly Gln Lys
115             120             125

Gln Val Ile Pro Gly Leu Glu Gln Ser Leu Leu Asp Met Cys Val Gly
130             135             140

Glu Lys Arg Arg Ala Ile Ile Pro Ser His Leu Ala Tyr Gly Lys Arg
145             150             155             160

Gly Phe Pro Pro Ser Val Pro Ala Asp Ala Val Val Gln Tyr Asp Val
165             170             175

Glu Leu Ile Ala Leu Ile Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys
180             185             190

Gly Ile Leu Pro Leu Val Gly Met Ala Met Val Pro Ala Leu Leu Gly
195             200             205

Leu Ile Gly Tyr His Leu Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser
210             215             220

Lys Lys Lys Leu Lys Glu Glu Lys Arg Asn Lys Ser Lys Lys Lys
225             230             235

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1159

&lt;210&gt; 1150

&lt;211&gt; 394

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1150

Ala Glu Xaa Gly Lys Thr Glu Trp Leu Phe Gly Met Asp Glu Gly Arg  
 1 5 10 15

Lys Gln Leu Ala Ala Ser Ala Gly Phe Arg Arg Leu Ile Thr Val Ala  
 20 25 30

Leu His Arg Gly Gln Gln Tyr Glu Ser Met Asp His Ile Gln Ala Glu  
 35 40 45

Leu Ser Ala Arg Val Met Glu Leu Ala Pro Ala Gly Met Pro Thr Gln  
 50 55 60

Gln Gln Val Pro Phe Leu Ser Val Gly Gly Asp Ile Gly Val Arg Thr  
 65 70 75 80

Val Gln His Gln Asp Cys Ser Pro Leu Ser Gly Asp Tyr Val Ile Glu  
 85 90 95

Asp Val Gln Gly Asp Asp Lys Arg Tyr Phe Arg Arg Leu Ile Phe Leu  
 100 105 110

Ser Asn Arg Asn Val Val Gln Ser Glu Ala Arg Leu Leu Lys Asp Val  
 115 120 125

Ser His Lys Ala Gln Lys Lys Arg Lys Lys Asp Arg Lys Lys Gln Arg  
 130 135 140

Pro Ala Asp Ala Glu Asp Leu Pro Ala Ala Pro Gly Gln Ser Ile Asp  
 145 150 155 160

Lys Ser Tyr Leu Cys Cys Glu His His Lys Ala Met Ile Ala Gly Leu  
 165 170 175

Ala Leu Leu Arg Asn Pro Glu Leu Leu Leu Glu Ile Pro Leu Ala Leu  
 180 185 190

Leu Val Val Gly Leu Gly Gly Gly Ser Leu Pro Leu Phe Val His Asp  
 195 200 205

His Phe Pro Lys Ser Cys Ile Asp Ala Val Glu Ile Asp Pro Ser Met

1160

210	215	220
Leu Glu Val Ala Thr Gln Trp Phe Gly Phe Ser Gln Ser Asp Arg Met		
225	230	235 240
Lys Val His Ile Ala Asp Gly Leu Asp Tyr Ile Ala Ser Leu Ala Gly		
245	250	255
Gly Gly Glu Ala Arg Pro Cys Tyr Asp Val Ile Met Phe Asp Val Asp		
260	265	270
Ser Lys Asp Pro Thr Leu Gly Met Ser Cys Pro Pro Pro Ala Phe Val		
275	280	285
Glu Gln Ser Phe Leu Gln Lys Val Lys Ser Ile Leu Thr Pro Glu Gly		
290	295	300
Val Phe Ile Leu Asn Leu Val Cys Arg Asp Leu Gly Leu Lys Asp Ser		
305	310	315 320
Val Leu Ala Gly Leu Lys Ala Val Phe Pro Leu Leu Tyr Val Arg Arg		
325	330	335
Ile Glu Gly Glu Val Asn Glu Ile Leu Phe Cys Gln Leu His Pro Glu		
340	345	350
Gln Lys Leu Ala Thr Pro Glu Leu Leu Glu Thr Ala Gln Ala Leu Glu		
355	360	365
Arg Thr Leu Arg Lys Pro Gly Arg Gly Trp Asp Asp Thr Tyr Val Leu		
370	375	380
Ser Asp Met Leu Lys Thr Val Lys Ile Val		
385	390	

&lt;210&gt; 1151

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1151

Val Asn Val Asn Asn Pro Ser Leu Cys His Ser Ser His Leu Val Asp
1 5 10 15

Leu Gly Ser Gly Ser Val Glu Phe Cys Ala Trp Glu Trp Ser Trp Arg
20 25 30

Glu Trp Gly Leu Cys Thr Ala Ala Thr Ser Pro Arg Ser Ser His Leu
35 40 45

1161

Pro Ala Pro Arg Pro Gly Cys Met Ala Ala Pro Val Cys Val Gln Arg  
 50 55 60

Ser Val Ser His Pro Leu His Leu Leu Ser Gly Gly Leu Gly Ser Pro  
 65 70 75 80

Thr Cys Cys Gln Asp Leu Gly Ala Ile Lys Tyr Ser Gly Phe Val Lys  
 85 90 95

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 100 105 110

<210> 1152

<211> 172

<212> PRT

<213> Homo sapiens

<400> 1152

Leu Gly Asp Thr Ile Glu Gly Arg Leu Gln Val Pro Val Arg Asn Ser  
 1 5 10 15

Arg Val Asp Pro Arg Val Arg Ala Arg Gly Ala Asp Arg Met Gly Lys  
 20 25 30

Cys Arg Gly Leu Arg Thr Ala Arg Lys Leu Arg Ser His Arg Arg Asp  
 35 40 45

Gln Lys Trp His Asp Lys Gln Tyr Lys Lys Ala His Leu Gly Thr Ala  
 50 55 60

Leu Lys Ala Asn Pro Phe Gly Gly Ala Ser His Ala Lys Gly Ile Val  
 65 70 75 80

Leu Glu Lys Val Gly Val Glu Ala Lys Gln Pro Asn Ser Ala Ile Arg  
 85 90 95

Lys Cys Val Arg Val Gln Leu Ile Lys Asn Gly Lys Lys Ile Thr Ala  
 100 105 110

Phe Val Pro Asn Asp Gly Cys Leu Asn Phe Ile Glu Glu Asn Asp Glu  
 115 120 125

Val Leu Val Ala Gly Phe Gly Arg Lys Gly His Ala Val Gly Asp Ile  
 130 135 140

Pro Gly Val Arg Phe Lys Val Val Lys Val Ala Asn Val Ser Leu Leu  
 145 150 155 160

1162

Ala Leu Tyr Lys Gly Lys Lys Glu Arg Pro Arg Ser  
                   165                  170

&lt;210&gt; 1153

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1153

Tyr Trp Cys Glu Gln Cys Asp Val Gln Phe Ser Ser Ser Ser Glu Leu  
   1                  5                  10                  15

Tyr Leu His Phe Gln Glu His Ser Cys Asp Glu Gln Tyr Leu Cys Gln  
           20                  25                  30

Phe Cys Glu His Glu Thr Asn Asp Pro Glu Asp Leu His Ser His Val  
           35                  40                  45

Val Asn Glu His Ala Cys Lys Leu Ile Glu Leu Ser Asp Lys Tyr Asn  
   50                  55                  60

Asn Gly Glu His Gly Gln Tyr Ser Leu Leu Ser Lys Ile Thr Phe Asp  
   65                  70                  75                  80

Lys Cys Lys Asn Phe Phe Val Cys Gln Val Cys Gly Phe Arg Ser Arg  
           85                  90                  95

Leu His Thr Asn Val Asn Arg His Val Ala Ile Glu His Thr Lys Ile  
           100                  105                  110

Phe Pro His Val Cys Asp Asp Cys Gly Lys Gly Phe Ser Ser Met Leu  
           115                  120                  125

Glu Tyr Cys Lys His Leu Asn Ser His Leu Ser Glu Gly Ile Tyr Leu  
           130                  135                  140

Cys Gln Tyr Cys Glu Tyr Ser Thr Gly Gln Ile Glu Asp Leu Lys Ile  
   145                  150                  155                  160

His Leu Asp Phe Lys His Ser Ala Asp Leu Pro His Lys Cys Ser Asp  
           165                  170                  175

Cys Leu Met Arg Phe Gly Asn Glu Arg Glu Leu Ile Ser His Leu Pro  
           180                  185                  190

Val His Glu Thr Thr  
           195

1163

&lt;210&gt; 1154

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1154

Pro Ala Lys Glu Arg Arg Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser  
1 5 10 15

Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Gly  
20 25 30

Ser Ser Ser Ser Asp Ser Glu Gly Ser Ser Leu Pro Val Gln Pro Glu  
35 40 45

Val Ala Leu Lys Arg Val Pro Ser Pro Thr Pro Ala Pro Lys Glu Ala  
50 55 60

Val Arg Glu Gly Arg Pro Pro Glu Pro Thr Pro Ala Lys Arg Lys Arg  
65 70 75 80

Arg Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser  
85 90 95

Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser  
100 105 110

Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Pro Ser Pro Ala Lys  
115 120 125

Pro Gly Pro Gln Ala Cys Pro Asn Leu Gln Ala Pro Arg Ser His Pro  
130 135 140

Leu Ala Ser Gly Gly Pro Ala Ala Pro Gly Ser Gln  
145 150 155

&lt;210&gt; 1155

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1164

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1155

Pro Glu Ala Pro Arg Gly Val Val Thr Cys Leu Arg Ala Leu Leu Ser  
 1 5 10 15

His Gln His Gln Thr Arg Pro His Arg Val Pro Gly Thr Met Phe Gly  
 20 25 30

Lys Arg Lys Lys Arg Val Glu Ile Ser Ala Pro Ser Asn Phe Glu His  
 35 40 45

Arg Val His Thr Gly Phe Asp Gln His Glu Gln Lys Phe Thr Gly Leu  
 50 55 60

Pro Arg Gln Trp Gln Ser Leu Ile Xaa Glu Ser Ala Arg Arg Pro Lys  
 65 70 75 80

Pro Leu Val Asp Pro Ala Cys Ile Thr Ser Ile Gln Pro Gly Ala Pro  
 85 90 95

Lys Thr Ile Val Arg Gly Ser Lys Xaa Ala Lys Asp Gly Ala Leu Thr  
 100 105 110

Leu Leu Leu Asp Glu Phe Glu Asn Met Xaa Val Thr Arg  
 115 120 125

&lt;210&gt; 1156

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1156

Arg Pro Thr Arg Pro Gln Pro Ser Pro Asp Glu Ala Arg Pro Leu Gln  
 1 5 10 15

Ala Leu Leu Asp Gly Arg Gly Leu Cys Val Asn Ala Ser Ala Val Ser  
 20 25 30

Arg Leu Arg Ala Tyr Leu Leu Pro Ala Pro Pro Ala Pro Gly Asn Ala  
 35 40 45

Ser Glu Ser Glu Glu Asp Arg Ser Ala Gly Ser Val Glu Ser Pro Ser



1165

50                      55                      60  
 Val Ser Ser Thr His Arg Val Ser Asp Pro Lys Phe His Pro Leu His  
 65                      70                      75                      80  
 Ser Lys Ile Ile Ile Ile Lys Lys Gly His Ala Lys Asp Ser Gln Arg  
                     85                      90                      95  
 Tyr Lys Val Asp Tyr Glu Ser Gln Ser Thr Asp Thr Gln Asn Phe Ser  
                     100                      105                      110  
 Ser Glu Ser Lys Arg Glu Thr Glu Tyr Gly Pro Cys Arg Arg Glu Met  
                     115                      120                      125  
 Glu Asp Thr Leu Asn His Leu Lys Phe Leu Asn Val Leu Ser Pro Arg  
                     130                      135                      140  
 Gly Val His Ile Pro Asn Cys Asp Lys Lys Gly Phe Tyr Lys Lys Lys  
 145                      150                      155                      160  
 Gln Cys Arg Pro Ser Lys Gly Arg Lys Arg Gly Phe Cys Trp Cys Val  
                     165                      170                      175  
 Asp Lys Tyr Gly Gln Pro Leu Pro Gly Tyr Thr Thr Lys Gly Lys Glu  
                     180                      185                      190  
 Asp Val His Cys Tyr Ser Met Gln Ser Lys  
                     195                      200

&lt;210&gt; 1157

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1157

Arg Arg Cys Cys His Ser Ala Thr Met Phe Glu Ala Arg Leu Val Gln  
 1                      5                      10                      15  
 Gly Ser Ile Leu Lys Lys Val Leu Glu Ala Leu Lys Asp Leu Ile Asn  
                     20                      25                      30  
 Glu Ala Cys Trp Asp Ile Ser Ser Ser Gly Val Asn Leu Gln Ser Met  
                     35                      40                      45  
 Asp Ser Ser His Val Ser Leu Val Gln Leu Thr Leu Arg Ser Glu Gly  
                     50                      55                      60  
 Phe Asp Thr Tyr Arg Cys Asp Arg Asn Leu Ala Met Gly Val Asn Leu  
 65                      70                      75                      80

1166

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Thr Ser Met Ser Lys Ile Leu Lys Cys Ala Gly Asn Glu Asp Ile Ile
      85                      90                      95

Thr Leu Arg Ala Glu Asp Asn Ala Asp Thr Leu Ala Leu Val Phe Glu
      100                    105                    110

Ala Pro Asn Gln Glu Lys Val Ser Asp Tyr Glu Met Lys Leu Met Asp
      115                    120                    125

Leu Asp Val Glu Gln Leu Gly Ile Pro Glu Gln Glu Tyr Ser Cys Val
      130                    135                    140

Val Lys Met Pro Ser Gly Glu Phe Ala Arg Ile Cys Arg Asp Leu Ser
      145                    150                    155                    160

His Ile Gly Asp Ala Val Val Ile Ser Cys Ala Lys Asp Gly Val Lys
      165                    170                    175

Phe Ser Ala Ser Gly Glu Leu Gly Asn Gly Asn Ile Lys Leu Ser Gln
      180                    185                    190

Thr Ser Asn Val Asp Lys Glu Glu Glu Ala Val Thr Ile Glu Met Asn
      195                    200                    205

Glu Pro Val Gln Leu Thr Phe Ala Leu Arg Tyr Leu Asn Phe Phe Thr
      210                    215                    220

Lys Ala Thr Pro Leu Ser Ser Thr Val Thr Leu Ser Met Ser Ala Asp
      225                    230                    235                    240

Val Pro Leu Val Val Glu Tyr Lys Ile Ala Asp Met Gly His Leu Lys
      245                    250                    255

Tyr Tyr Leu Ala Pro Lys Ile Glu Asp Glu Glu Gly Ser
      260                    265

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&lt;210&gt; 1158

&lt;211&gt; 639

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1167

&lt;222&gt; (150)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1158

Met	Asp	Glu	Met	Ala	Thr	Thr	Gln	Ile	Ser	Lys	Asp	Glu	Leu	Asp	Glu	1	5	10	15
Leu	Lys	Glu	Ala	Phe	Ala	Lys	Val	Asp	Leu	Asn	Ser	Asn	Gly	Phe	Ile	20	25	30	
Cys	Asp	Tyr	Glu	Leu	His	Glu	Leu	Phe	Lys	Glu	Ala	Asn	Met	Pro	Leu	35	40	45	
Pro	Gly	Tyr	Lys	Val	Arg	Glu	Ile	Ile	Gln	Lys	Leu	Met	Leu	Asp	Gly	50	55	60	
Asp	Arg	Asn	Lys	Asp	Gly	Lys	Ile	Ser	Phe	Asp	Glu	Phe	Val	Tyr	Ile	65	70	75	80
Phe	Gln	Glu	Val	Lys	Ser	Ser	Asp	Ile	Ala	Lys	Thr	Phe	Arg	Lys	Ala	85	90	95	
Ile	Asn	Arg	Lys	Glu	Gly	Ile	Cys	Ala	Leu	Gly	Gly	Thr	Ser	Glu	Leu	100	105	110	
Ser	Ser	Glu	Gly	Thr	Gln	His	Ser	Tyr	Ser	Glu	Glu	Glu	Lys	Tyr	Ala	115	120	125	
Xaa	Val	Asn	Trp	Ile	Asn	Lys	Ala	Leu	Glu	Asn	Asp	Pro	Asp	Cys	Arg	130	135	140	
His	Val	Ile	Pro	Met	Xaa	Pro	Asn	Thr	Asp	Asp	Leu	Phe	Lys	Ala	Val	145	150	155	160
Gly	Asp	Gly	Ile	Val	Leu	Cys	Lys	Met	Ile	Asn	Leu	Ser	Val	Pro	Asp	165	170	175	
Thr	Ile	Asp	Glu	Arg	Ala	Ile	Asn	Lys	Lys	Lys	Leu	Thr	Pro	Phe	Ile	180	185	190	
Ile	Gln	Glu	Asn	Leu	Asn	Leu	Ala	Leu	Asn	Ser	Ala	Ser	Ala	Ile	Gly	195	200	205	
Cys	His	Val	Val	Asn	Ile	Gly	Ala	Glu	Asp	Leu	Arg	Ala	Gly	Lys	Pro	210	215	220	
His	Leu	Val	Leu	Gly	Leu	Leu	Trp	Gln	Ile	Ile	Lys	Ile	Gly	Leu	Phe	225	230	235	240
Ala	Asp	Ile	Glu	Leu	Ser	Arg	Asn	Glu	Ala	Leu	Ala	Ala	Leu	Leu	Arg	245	250	255	

1168

Asp Gly Glu Thr Leu Glu Glu Leu Met Lys Leu Ser Pro Glu Glu Leu	260	265	270
Leu Leu Arg Trp Ala Asn Phe His Leu Glu Asn Ser Gly Trp Gln Lys	275	280	285
Ile Asn Asn Phe Ser Ala Asp Ile Lys Leu Ile Asp Phe Ser Asn Ser	290	295	300
Val Lys Asp Ser Lys Ala Tyr Phe His Leu Leu Asn Gln Ile Ala Pro	305	310	315
Lys Gly Gln Lys Glu Gly Glu Pro Arg Ile Asp Ile Asn Met Ser Gly	325	330	335
Phe Asn Glu Thr Asp Asp Leu Lys Arg Ala Glu Ser Met Leu Gln Gln	340	345	350
Ala Asp Lys Leu Gly Cys Arg Gln Phe Val Thr Pro Ala Asp Val Val	355	360	365
Ser Gly Asn Pro Lys Leu Asn Leu Ala Phe Val Ala Asn Leu Phe Asn	370	375	380
Lys Tyr Pro Ala Leu Thr Lys Pro Glu Asn Gln Asp Ile Asp Trp Thr	385	390	395
Leu Leu Glu Gly Glu Thr Arg Glu Glu Arg Thr Phe Arg Asn Trp Met	405	410	415
Asn Ser Leu Gly Val Asn Pro His Val Asn His Leu Tyr Ala Asp Leu	420	425	430
Gln Asp Ala Leu Val Ile Leu Gln Leu Tyr Glu Arg Ile Lys Val Pro	435	440	445
Val Asp Trp Ser Lys Val Asn Lys Pro Pro Tyr Pro Lys Leu Gly Ala	450	455	460
Asn Met Lys Lys Leu Glu Asn Cys Asn Tyr Ala Val Glu Leu Gly Lys	465	470	475
His Pro Ala Lys Phe Ser Leu Val Gly Ile Gly Gly Gln Asp Leu Asn	485	490	495
Asp Gly Asn Gln Thr Leu Thr Leu Ala Leu Val Trp Gln Leu Met Arg	500	505	510
Arg Tyr Thr Leu Asn Val Leu Glu Asp Leu Gly Asp Gly Gln Lys Ala	515	520	525

1169

Asn Asp Asp Ile Ile Val Asn Trp Val Asn Arg Thr Leu Ser Glu Ala  
 530 535 540

Gly Lys Ser Thr Ser Ile Gln Ser Phe Lys Asp Lys Thr Ile Ser Ser  
 545 550 555 560

Ser Leu Ala Val Val Asp Leu Ile Asp Ala Ile Gln Pro Gly Cys Ile  
 565 570 575

Asn Tyr Asp Leu Val Lys Ser Gly Asn Leu Thr Glu Asp Asp Lys His  
 580 585 590

Asn Asn Ala Lys Tyr Ala Val Ser Met Ala Arg Arg Ile Gly Ala Arg  
 595 600 605

Val Tyr Ala Leu Pro Glu Asp Leu Val Glu Val Lys Pro Lys Met Val  
 610 615 620

Met Thr Val Phe Ala Cys Leu Met Gly Arg Gly Met Lys Arg Val  
 625 630 635

&lt;210&gt; 1159

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1159

Thr Ile Trp Pro Leu Asn Phe His Arg Lys Asn Asp Pro Thr Phe Leu  
 1 5 10 15

Ser Met Ser Tyr Leu Ile Ser Arg Ser Trp Asp Gly Leu Thr Ile Leu  
 20 25 30

Val Tyr Ile Leu Asp Thr Glu Arg Cys Tyr Ala Ser Val Ile Ile Pro  
 35 40 45

Arg Leu Glu Ile Gly Arg Ala Lys Lys Val Leu Leu Phe Phe Leu  
 50 55 60

&lt;210&gt; 1160

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1160

Glu Val Tyr Gly Gly Ser Leu Asp Lys Glu Phe Asp Glu Ser Ser Pro

1170

1	5	10	15
Lys Gln Pro Thr Asn Pro Tyr Ala Ser Ser Lys Ala Ala Ala Glu Cys			
20	25	30	
Phe Val Gln Ser Tyr Trp Glu Gln Tyr Lys Phe Pro Val Val Ile Thr			
35	40	45	
Arg Ser Ser Asn Val Tyr Gly Pro His Gln Tyr Pro Glu Lys Val Ile			
50	55	60	
Pro Lys Phe Ile Ser Leu Leu Gln His Asn Arg Lys Cys Cys Ile His			
65	70	75	80
Gly Ser Gly Leu Gln Thr Arg Asn Phe Leu Tyr Ala Thr Asp Val Val			
85	90	95	
Glu Ala Phe Leu Thr Val Leu Lys Lys Gly Lys Pro Gly Glu Ile Tyr			
100	105	110	
Asn Ile Gly Thr Asn Phe Glu Met Ser Val Val Gln Leu Ala Lys Glu			
115	120	125	
Leu Ile Gln Leu Ile Lys Glu Thr Asn Ser Glu Ser Glu Met Glu Asn			
130	135	140	
Trp Val Asp Tyr Val Asn Asp Arg Pro Thr Asn Asp Met Arg Tyr Pro			
145	150	155	160
Met Lys Ser Glu Lys Ile His Gly Leu Gly Trp Arg Pro Lys Val Pro			
165	170	175	
Trp Lys Glu Gly Ile Lys Lys Thr Ile Glu Trp Tyr Arg Glu Asn Phe			
180	185	190	
His Asn Trp Lys Asn Val Glu Lys Ala Leu Glu Pro Phe Pro Val			
195	200	205	

&lt;210&gt; 1161

&lt;211&gt; 848

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (815)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1171

&lt;221&gt; SITE

&lt;222&gt; (844)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1161

Ala	Leu	Gly	Leu	Gly	Val	Thr	Met	Ala	Thr	Glu	Glu	Phe	Ile	Ile	Arg
1				5					10					15	

Ile	Pro	Pro	Tyr	His	Tyr	Ile	His	Val	Leu	Asp	Gln	Asn	Ser	Asn	Val
			20					25					30		

Ser	Arg	Val	Glu	Val	Gly	Pro	Lys	Thr	Tyr	Ile	Arg	Gln	Asp	Asn	Glu
		35					40					45			

Arg	Val	Leu	Phe	Ala	Pro	Met	Arg	Met	Val	Thr	Val	Pro	Pro	Arg	His
	50					55					60				

Tyr	Cys	Thr	Val	Ala	Asn	Pro	Val	Ser	Arg	Asp	Ala	Gln	Gly	Leu	Val
65					70					75				80	

Leu	Phe	Asp	Val	Thr	Gly	Gln	Val	Arg	Leu	Arg	His	Ala	Asp	Leu	Glu
			85						90					95	

Ile	Arg	Leu	Ala	Gln	Asp	Pro	Phe	Pro	Leu	Tyr	Pro	Gly	Glu	Val	Leu
		100						105					110		

Glu	Lys	Asp	Ile	Thr	Pro	Leu	Gln	Val	Val	Leu	Pro	Asn	Thr	Ala	Leu
	115						120					125			

His	Leu	Lys	Ala	Leu	Leu	Asp	Phe	Glu	Asp	Lys	Asp	Gly	Asp	Lys	Val
	130					135					140				

Val	Ala	Gly	Asp	Glu	Trp	Leu	Phe	Glu	Gly	Pro	Gly	Thr	Tyr	Ile	Pro
145					150					155				160	

Arg	Lys	Glu	Val	Glu	Val	Val	Glu	Ile	Ile	Gln	Ala	Thr	Ile	Ile	Arg
			165					170					175		

Gln	Asn	Gln	Ala	Leu	Arg	Leu	Arg	Ala	Arg	Lys	Glu	Cys	Trp	Asp	Arg
		180					185						190		

Asp	Gly	Lys	Glu	Arg	Val	Thr	Gly	Glu	Glu	Trp	Leu	Val	Thr	Thr	Val
	195						200					205			

Gly	Ala	Tyr	Leu	Pro	Ala	Val	Phe	Glu	Glu	Val	Leu	Asp	Leu	Val	Asp
	210					215					220				

Ala	Val	Ile	Leu	Thr	Glu	Lys	Thr	Ala	Leu	His	Leu	Arg	Ala	Arg	Arg
225						230				235				240	

Asn	Phe	Arg	Asp	Phe	Arg	Gly	Val	Ser	Arg	Arg	Thr	Gly	Glu	Glu	Trp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1172

245	250	255
Leu Val Thr Val Gln Asp Thr Glu Ala His Val Pro Asp Val His Glu		
260	265	270
Glu Val Leu Gly Val Val Pro Ile Thr Thr Leu Gly Pro His Asn Tyr		
275	280	285
Cys Val Ile Leu Asp Pro Val Gly Pro Asp Gly Lys Asn Gln Leu Gly		
290	295	300
Gln Lys Arg Val Val Lys Gly Glu Lys Ser Phe Phe Leu Gln Pro Gly		
305	310	315
Glu Gln Leu Glu Gln Gly Ile Gln Asp Val Tyr Val Leu Ser Glu Gln		
325	330	335
Gln Gly Leu Leu Leu Arg Ala Leu Gln Pro Leu Glu Glu Gly Glu Asp		
340	345	350
Glu Glu Lys Val Ser His Gln Ala Gly Asp His Trp Leu Ile Arg Gly		
355	360	365
Pro Leu Glu Tyr Val Pro Ser Ala Lys Val Glu Val Val Glu Glu Arg		
370	375	380
Gln Ala Ile Pro Leu Asp Glu Asn Glu Gly Ile Tyr Val Gln Asp Val		
385	390	395
Lys Thr Gly Lys Val Arg Ala Val Ile Gly Ser Thr Tyr Met Leu Thr		
405	410	415
Gln Asp Glu Val Leu Trp Glu Lys Glu Leu Pro Pro Gly Val Glu Glu		
420	425	430
Leu Leu Asn Lys Gly Gln Asp Pro Leu Ala Asp Arg Gly Glu Lys Asp		
435	440	445
Thr Ala Lys Ser Leu Gln Pro Leu Ala Pro Arg Asn Lys Thr Arg Val		
450	455	460
Val Ser Tyr Arg Val Pro His Asn Ala Ala Val Gln Val Tyr Asp Tyr		
465	470	475
Arg Glu Lys Arg Ala Arg Val Val Phe Gly Pro Glu Leu Val Ser Leu		
485	490	495
Gly Pro Glu Glu Gln Phe Thr Val Leu Ser Leu Ser Ala Gly Arg Pro		
500	505	510
Lys Arg Pro His Ala Arg Arg Ala Leu Cys Leu Leu Leu Gly Pro Asp		



1173

515	520	525
Phe Phe Thr Asp Val Ile Thr Ile Glu Thr Ala Asp His Ala Arg Leu		
530	535	540
Gln Leu Gln Leu Ala Tyr Asn Trp His Phe Glu Val Asn Asp Arg Lys		
545	550	555 560
Asp Pro Gln Glu Thr Ala Lys Leu Phe Ser Val Pro Asp Phe Val Gly		
	565	570 575
Asp Ala Cys Lys Ala Ile Ala Ser Arg Val Arg Gly Ala Val Ala Ser		
	580	585 590
Val Thr Phe Asp Asp Phe His Lys Asn Ser Ala Arg Ile Ile Arg Thr		
	595	600 605
Ala Val Phe Gly Phe Glu Thr Ser Glu Ala Lys Gly Pro Asp Gly Met		
	610	615 620
Ala Leu Pro Arg Pro Arg Asp Gln Ala Val Phe Pro Gln Asn Gly Leu		
	625	630 635 640
Val Val Ser Ser Val Asp Val Gln Ser Val Glu Pro Val Asp Gln Arg		
	645	650 655
Thr Arg Asp Ala Leu Gln Arg Ser Val Gln Leu Ala Ile Glu Ile Thr		
	660	665 670
Thr Asn Ser Gln Glu Ala Ala Ala Lys His Glu Ala Gln Arg Leu Glu		
	675	680 685
Gln Glu Ala Arg Gly Arg Leu Glu Arg Gln Lys Ile Leu Asp Gln Ser		
	690	695 700
Glu Ala Glu Lys Ala Arg Lys Glu Leu Leu Glu Leu Glu Ala Leu Ser		
	705	710 715 720
Met Ala Val Glu Ser Thr Gly Thr Ala Lys Ala Glu Ala Glu Ser Arg		
	725	730 735
Ala Glu Ala Ala Arg Ile Glu Gly Glu Gly Ser Val Leu Gln Ala Lys		
	740	745 750
Leu Lys Ala Gln Ala Leu Ala Ile Glu Thr Glu Ala Glu Leu Gln Arg		
	755	760 765
Val Gln Lys Val Arg Glu Leu Glu Leu Val Tyr Ala Arg Ala Gln Leu		
	770	775 780
Glu Leu Glu Val Ser Lys Ala Gln Gln Leu Ala Glu Val Glu Val Lys		

1174

785					790					795					800
Lys	Phe	Lys	Gln	Met	Thr	Glu	Ala	Ile	Gly	Pro	Ser	Thr	Ile	Xaa	Asp
				805					810					815	
Leu	Ala	Val	Ala	Gly	Pro	Glu	Met	Gln	Val	Lys	Leu	Leu	Gln	Ser	Leu
			820					825					830		
Gly	Leu	Lys	Ser	Thr	Leu	Ile	Thr	Asp	Gly	Phe	Xaa	Ser	Ile	Asn	Phe
		835					840					845			

<210> 1162

<211> 58

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1162

Phe Xaa Val Gly Ile Val Asn Phe Ser Gln Pro Pro His Ala Ala Gly  
 1 5 10 15  
 Glu Cys Gly Cys Ser Ser Ser Glu Met Leu Thr Xaa Lys Arg Glu Val  
 20 25 30  
 Lys Gln Ser Arg Tyr Val Gln Pro Cys Leu Gln Asn Pro Ser Leu Ser  
 35 40 45  
 Ser Leu Ile Arg Ser Phe Leu Val Phe Tyr  
 50 55

<210> 1163

<211> 565

<212> PRT

<213> Homo sapiens

1175

&lt;400&gt; 1163

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Ile Pro Gly Ser Thr His Ala Ser Ala Gly Asn Leu Asp Ser Pro Glu
 1             5             10             15

Gly Gly Phe Asp Ala Ile Met Gln Val Ala Val Cys Gly Ser Leu Ile
      20             25             30

Gly Trp Arg Asn Val Thr Arg Leu Leu Val Phe Ser Thr Asp Ala Gly
      35             40             45

Phe His Phe Ala Gly Asp Gly Lys Leu Gly Gly Ile Val Leu Pro Asn
 50             55             60

Asp Gly Gln Cys His Leu Glu Asn Asn Met Tyr Thr Met Ser His Tyr
 65             70             75             80

Tyr Asp Tyr Pro Ser Ile Ala His Leu Val Gln Lys Leu Ser Glu Asn
      85             90             95

Asn Ile Gln Thr Ile Phe Ala Val Thr Glu Glu Phe Gln Pro Val Tyr
      100             105             110

Lys Glu Leu Lys Asn Leu Ile Pro Lys Ser Ala Val Gly Thr Leu Ser
      115             120             125

Ala Asn Ser Ser Asn Val Ile Gln Leu Ile Ile Asp Ala Tyr Asn Ser
      130             135             140

Leu Ser Ser Glu Val Ile Leu Glu Asn Gly Lys Leu Ser Glu Gly Val
      145             150             155             160

Thr Ile Ser Tyr Lys Ser Tyr Cys Lys Asn Gly Val Asn Gly Thr Gly
      165             170             175

Glu Asn Gly Arg Lys Cys Ser Asn Ile Ser Ile Gly Asp Glu Val Gln
      180             185             190

Phe Glu Ile Ser Ile Thr Ser Asn Lys Cys Pro Lys Lys Asp Ser Asp
      195             200             205

Ser Phe Lys Ile Arg Pro Leu Gly Phe Thr Glu Glu Val Glu Val Ile
      210             215             220

Leu Gln Tyr Ile Cys Glu Cys Glu Cys Gln Ser Glu Gly Ile Pro Glu
      225             230             235             240

Ser Pro Lys Cys His Glu Gly Asn Gly Thr Phe Glu Cys Gly Ala Cys
      245             250             255

Arg Cys Asn Glu Gly Arg Val Gly Arg His Cys Glu Cys Ser Thr Asp
      260             265             270

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1176

Glu Val Asn Ser Glu Asp Met Asp Ala Tyr Cys Arg Lys Glu Asn Ser  
 275 280 285

Ser Glu Ile Cys Ser Asn Asn Gly Glu Cys Val Cys Gly Gln Cys Val  
 290 295 300

Cys Arg Lys Arg Asp Asn Thr Asn Glu Ile Tyr Ser Gly Lys Phe Cys  
 305 310 315 320

Glu Cys Asp Asn Phe Asn Cys Asp Arg Ser Asn Gly Leu Ile Cys Gly  
 325 330 335

Gly Asn Gly Val Cys Lys Cys Arg Val Cys Glu Cys Asn Pro Asn Tyr  
 340 345 350

Thr Gly Ser Ala Cys Asp Cys Ser Leu Asp Thr Ser Thr Cys Glu Ala  
 355 360 365

Ser Asn Gly Gln Ile Cys Asn Gly Arg Gly Ile Cys Glu Cys Gly Val  
 370 375 380

Cys Lys Cys Thr Asp Pro Lys Phe Gln Gly Gln Thr Cys Glu Met Cys  
 385 390 395 400

Gln Thr Cys Leu Gly Val Cys Ala Glu His Lys Glu Cys Val Gln Cys  
 405 410 415

Arg Ala Phe Asn Lys Gly Glu Lys Lys Asp Thr Cys Thr Gln Glu Cys  
 420 425 430

Ser Tyr Phe Asn Ile Thr Lys Val Glu Ser Arg Asp Lys Leu Pro Gln  
 435 440 445

Pro Val Gln Pro Asp Pro Val Ser His Cys Lys Glu Lys Asp Val Asp  
 450 455 460

Asp Cys Trp Phe Tyr Phe Thr Tyr Ser Val Asn Gly Asn Asn Glu Val  
 465 470 475 480

Met Val His Val Val Glu Asn Pro Glu Cys Pro Thr Gly Pro Asp Ile  
 485 490 495

Ile Pro Ile Val Ala Gly Val Val Ala Gly Ile Val Leu Ile Gly Leu  
 500 505 510

Ala Leu Leu Leu Ile Trp Lys Leu Leu Met Ile Ile His Asp Arg Arg  
 515 520 525

Glu Phe Ala Lys Phe Glu Lys Glu Lys Met Asn Ala Lys Trp Asp Thr  
 530 535 540

1177

Gly Glu Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val Asn Pro  
 545 550 555 560

Lys Tyr Glu Gly Lys  
 565

&lt;210&gt; 1164

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1164

Gly Thr Ala Gly Gly Ala Gly Gly Gln Arg Glu Val Arg Gly Cys Ser  
 1 5 10 15

Ala Gln Glu Thr Met Ser Gly Gly Ser Ser Cys Ser Gln Thr Pro Ser  
 20 25 30

Arg Ala Ile Pro Ala Thr Arg Arg Val Val Leu Gly Asp Gly Val Gln  
 35 40 45

Leu Pro Pro Gly Asp Tyr Ser Thr Thr Pro Gly Gly Thr Leu Phe Ser  
 50 55 60

Thr Thr Pro Gly Gly Thr Arg Ile Ile Tyr Asp Arg Lys Phe Leu Met  
 65 70 75 80

Glu Cys Arg Asn Ser Pro Val Thr Lys Thr Pro Pro Arg Asp Leu Pro  
 85 90 95

Thr Ile Pro Gly Val Thr Ser Pro Ser Ser Asp Glu Pro Pro Met Glu  
 100 105 110

Ala Ser Gln Ser His Leu Arg Asn Ser Pro Glu Asp Lys Arg Ala Gly  
 115 120 125

Gly Glu Glu Ser Gln Phe Glu Met Asp Ile  
 130 135

&lt;210&gt; 1165

&lt;211&gt; 407

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1165

Ala Ala Cys Gln Pro Arg Cys Cys Cys Ser Ser Cys Cys Gly Thr Ala

1178

1	5	10	15
Asp Arg Ala	Ala Ala Pro Leu Ser	Pro Leu Gln Ala Pro	Ile Trp Ala
	20	25	30
Pro Ala Thr	Ser Met Asp Ala Arg	Arg Val Pro Gln Lys	Asp Leu Arg
	35	40	45
Val Lys Lys	Asn Leu Lys Lys Phe	Arg Tyr Val Lys	Leu Ile Ser Met
	50	55	60
Glu Thr Ser	Ser Ser Ser Asp	Asp Ser Cys Asp	Ser Phe Ala Ser Asp
	65	70	75
Asn Phe Ala	Asn Thr Arg Leu Gln	Ser Val Arg Glu	Gly Cys Arg Thr
	85	90	95
Arg Ser Gln	Cys Arg His Ser Gly	Pro Leu Arg Val	Ala Met Lys Phe
	100	105	110
Pro Ala Arg	Ser Thr Arg Gly	Ala Thr Asn Lys	Lys Ala Glu Ser Arg
	115	120	125
Gln Pro Ser	Glu Asn Ser Val Thr	Asp Ser Asn Ser	Asp Ser Glu Asp
	130	135	140
Glu Ser Gly	Met Asn Phe Leu	Glu Lys Arg Ala	Leu Asn Ile Lys Gln
	145	150	155
Asn Lys Ala	Met Leu Ala Lys	Leu Met Ser Glu	Leu Glu Ser Phe Pro
	165	170	175
Gly Ser Phe	Arg Gly Arg His	Pro Leu Pro Gly	Ser Asp Ser Gln Ser
	180	185	190
Arg Arg Pro	Arg Arg Arg Thr	Phe Pro Gly Val	Ala Ser Arg Arg Asn
	195	200	205
Pro Glu Arg	Arg Ala Arg Pro	Leu Thr Arg Ser	Arg Ser Arg Ile Leu
	210	215	220
Gly Ser Leu	Asp Ala Leu Pro	Met Glu Glu Glu	Glu Glu Asp Lys
	225	230	235
Tyr Met Leu	Val Arg Lys Arg	Lys Thr Val Asp	Gly Tyr Met Asn Glu
	245	250	255
Asp Asp Leu	Pro Arg Ser Arg	Arg Ser Arg Ser	Val Thr Leu Pro
	260	265	270
His Ile Ile	Arg Pro Val Glu	Glu Ile Thr Glu	Glu Glu Leu Glu Asn

1179

275	280	285
Val Cys Ser Asn Ser Arg Glu Lys Ile Tyr Asn Arg Ser Leu Gly Ser		
290	295	300
Thr Cys His Gln Cys Arg Gln Lys Thr Ile Asp Thr Lys Thr Asn Cys		
305	310	315 320
Arg Asn Pro Asp Cys Trp Gly Val Arg Gly Gln Phe Cys Gly Pro Cys		
325	330	335
Leu Arg Asn Arg Tyr Gly Glu Glu Val Arg Asp Ala Leu Leu Asp Pro		
340	345	350
Asn Trp His Cys Pro Pro Cys Arg Gly Ile Cys Asn Cys Ser Phe Cys		
355	360	365
Arg Gln Arg Asp Gly Arg Cys Ala Thr Gly Val Leu Val Tyr Leu Ala		
370	375	380
Lys Tyr His Gly Phe Gly Asn Val His Ala Tyr Leu Lys Ser Leu Lys		
385	390	395 400
Gln Glu Phe Glu Met Gln Ala		
405		

&lt;210&gt; 1166

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (197)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (201)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (202)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (219)

1180

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1166

Pro	Asp	Gly	Arg	Pro	Thr	Gly	Asp	Ala	Phe	Val	Leu	Phe	Ala	Cys	Glu
1				5					10					15	
Glu	Tyr	Ala	Gln	Asn	Ala	Leu	Arg	Lys	His	Lys	Asp	Leu	Leu	Gly	Lys
			20					25					30		
Arg	Tyr	Ile	Glu	Leu	Phe	Arg	Ser	Thr	Ala	Ala	Glu	Val	Gln	Gln	Val
		35					40					45			
Leu	Asn	Arg	Phe	Ser	Ser	Ala	Pro	Leu	Ile	Pro	Leu	Pro	Thr	Pro	Pro
	50					55					60				
Ile	Ile	Pro	Val	Leu	Pro	Gln	Gln	Phe	Val	Pro	Pro	Thr	Asn	Val	Arg
65					70					75					80
Asp	Cys	Ile	Arg	Leu	Arg	Gly	Leu	Pro	Tyr	Ala	Ala	Thr	Ile	Glu	Asp
				85					90					95	
Ile	Leu	Asp	Phe	Leu	Gly	Glu	Phe	Ala	Thr	Asp	Ile	Arg	Thr	His	Gly
			100					105					110		
Val	His	Met	Val	Leu	Asn	His	Gln	Gly	Arg	Pro	Ser	Gly	Asp	Ala	Phe
		115					120					125			
Ile	Gln	Met	Lys	Ser	Ala	Asp	Arg	Ala	Phe	Met	Ala	Ala	Gln	Lys	Cys
	130					135					140				
His	Lys	Lys	Asn	Met	Lys	Asp	Arg	Tyr	Val	Glu	Val	Phe	Gln	Cys	Ser
145					150					155					160
Ala	Glu	Glu	Met	Asn	Phe	Val	Leu	Met	Gly	Gly	Thr	Leu	Asn	Arg	Asn
			165						170				175		
Gly	Leu	Ser	Pro	Pro	Pro	Cys	Leu	Ser	Pro	Pro	Ser	Tyr	Thr	Phe	Pro
			180					185					190		
Ala	Pro	Ala	Ala	Xaa	Ile	Pro	Thr	Xaa	Xaa	Ala	Ile	Tyr	Gln	Pro	Ser
		195					200					205			
Val	Ile	Leu	Asn	Pro	Arg	Ala	Leu	Gln	Pro	Xaa	Thr	Ala	Tyr	Tyr	Pro
	210					215					220				
Ala	Gly	Thr	Gln	Leu	Phe	Met	Asn	Tyr	Thr	Ala	Tyr	Tyr	Pro	Ser	Val
225					230					235					240



1181

&lt;210&gt; 1167

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1167

Gly Gly Tyr Ser Val Asp Ser Pro Thr Leu Thr Arg Phe Phe Thr Phe  
 1 5 10 15

His Phe Ile Leu Pro Phe Ile Ile Ala Ala Leu Ala Ala Leu His Leu  
 20 25 30

Leu Phe Leu His Glu Thr Gly Ser Asn Asn Pro Leu Gly Ile Thr Ser  
 35 40 45

His Ser Asp Lys Ile Thr Phe His Pro Tyr Tyr Thr Ile Lys Asp Ala  
 50 55 60

Leu Gly Leu Leu Leu Phe Leu Leu Ser Leu Met Thr Leu Thr Leu Phe  
 65 70 75 80

Ser Pro Asp Leu Leu Gly Asp Pro Asp Asn Tyr Thr Leu Ala Asn Pro  
 85 90 95

Leu Asn Thr Pro Pro His Ile Lys Pro Glu  
 100 105

&lt;210&gt; 1168

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1168

Gln His Val Gln Arg Glu Trp Ser Gly His Gly Glu Asp Arg Gly Asp  
 1 5 10 15

Gly Glu Asp Ala Glu Arg Gly Ser Cys Arg Glu Glu Pro Ala His Gly  
 20 25 30

Val Glu Gly Ala Gly Asp Gly Ala Ala Ala Ala Gly Pro Gly Gly Gly  
 35 40 45

1182

Ala Ala Glu Ala Xaa Gln Val Glu Arg Arg Leu Gln Ser Glu Ser Ala  
           50                          55                          60  
 Arg Arg Gln Gln Leu Val Glu Lys Glu Val Lys Met Arg Glu Lys Gln  
           65                          70                          75                          80  
 Phe Ser Gln Ala Arg Pro Leu Thr Arg Tyr Leu Pro Ile Arg Lys Glu  
                           85                          90                          95  
 Asp Phe Asp Leu Lys Thr His Ile Glu Ser Ser Gly His Gly Val Asp  
                           100                          105                          110  
 Thr Cys Leu His Val Val Leu Ser Ser Lys Val Cys Arg Gly Tyr Leu  
                           115                          120                          125  
 Val Lys Met Gly Gly Lys Ile Lys Ser Trp Lys Lys Arg Trp Phe Val  
           130                          135                          140  
 Phe Asp Arg Leu Lys Arg Thr Leu Ser Tyr Tyr Val Asp Lys His Glu  
           145                          150                          155                          160  
 Thr Lys Leu Lys Gly Val Ile Tyr Phe Gln Ala Ile Glu Gly Ser Val  
                           165                          170                          175  
 Leu Arg Pro Pro Ala Pro Val Gln Pro Arg Arg Gly Phe Ser Ala Ser  
                           180                          185                          190  
 Thr Met Val Thr Glu Lys Pro Glu Pro Ser Pro His Leu Leu Arg Lys  
           195                          200                          205  
 Asp Pro  
           210

&lt;210&gt; 1169

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1169

Thr Ser Lys Met Arg Ser Leu Glu Thr Leu Gly Arg Pro Lys Pro Glu  
           1                          5                          10                          15  
 Cys Glu Gly Tyr Asp Pro Asn Ala Leu Tyr Cys Ile Cys Arg Gln Pro  
                           20                          25                          30  
 His Asn Asn Arg Phe Met Ile Cys Cys Asp Arg Cys Glu Glu Trp Phe  
           35                          40                          45  
 His Gly Asp Cys Val Gly Ile Ser Glu Ala Arg Gly Arg Leu Leu Glu

1183

50	55	60
Arg Asn Gly Glu Asp Tyr Ile Cys Pro Asn Cys Thr Ile Leu Gln Val		
65	70	75 80
Gln Asp Glu Thr His Ser Glu Thr Ala Asp Gln Gln Glu Ala Lys Trp		
	85	90 95
Arg Pro Gly Asp Ala Asp Gly Thr Asp Cys Thr Ser Ile Gly Thr Ile		
	100	105 110
Glu Gln Lys Ser Ser Glu Asp Gln Gly Ile Lys Gly Arg Ile Glu Lys		
	115	120 125
Ala Ala Asn Pro Ser Gly Lys Lys Lys Leu Lys Ile Phe Gln Pro Val		
	130	135 140
Ile Glu Ala Pro Gly Ala Ser Lys Cys Ile Gly Pro Gly Cys Cys His		
	145	150 155 160
Val Ala His Pro Thr Arg Cys Thr Ala Val Met Thr Val Ser Ser Asn		
	165	170 175
Thr Pro Gln Arg Gln		
	180	

&lt;210&gt; 1170

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1170

Ala Gln Xaa Leu Ser Ser Pro Val Arg Gly Ile Ser Gly Glu Gln Ser

1

5

10

15

1184

Thr Xaa Gly Ser Phe Pro Leu Arg Tyr Val Gln Asp Gln Val Ala Ala  
 20 25 30

Pro Phe Gln Leu Ser Asn His Thr Gly Arg Ile Lys Val Val Phe Thr  
 35 40 45

Pro Ser Ile Cys Lys Val Thr Cys Thr Lys Gly Ser Cys Gln Asn Ser  
 50 55 60

Cys Glu Lys Gly Asn Thr Thr Thr Leu Ile Ser Glu Asn Gly His Ala  
 65 70 75 80

Ala Asp Thr Leu Thr Ala Thr Asn Phe Arg Val Val Ile Cys His Leu  
 85 90 95

Pro Cys Met Asn Gly Gly Gln Cys Ser Ser Arg Asp Lys Cys Gln Cys  
 100 105 110

Pro Pro Asn Phe Thr Gly Lys Leu Cys Gln Ile Pro Val His Gly Ala  
 115 120 125

Ser Val Xaa Lys Leu Tyr Gln His Ser Gln Gln Pro Gly Lys Ala Leu  
 130 135 140

Gly Thr His Val Ile His Ser Thr His Thr Leu Pro Leu Thr Val Thr  
 145 150 155 160

Ser Gln Gln Glu Ser Lys  
 165

&lt;210&gt; 1171

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1171

Asp Leu Ser Val Asn Phe Trp Glu Pro Asn Gly Phe Gly His Asp Phe  
 1 5 10 15

Pro Ala His Tyr Ile Leu Thr Gln Asn Phe Phe Arg Met Ala Phe Thr  
 20 25 30

Ser Thr Pro Glu Ile  
 35

&lt;210&gt; 1172

1185

<211> 169  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (22)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (70)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (115)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (163)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (167)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1172  
 Arg Gly Ala Met Val Ser Cys Arg Pro Gly Cys Cys Cys Pro Trp Thr  
   1                  5                  10                  15  
 Pro Ala Val Leu Arg Xaa Ser Val Arg Gly Thr Phe Tyr Ser Pro Pro  
                   20                  25                  30  
 Glu Ser Phe Ala Gly Ser Asp Asn Glu Ser Asp Glu Glu Val Ala Gly  
           35                  40                  45  
 Lys Lys Ser Phe Ser Ala Gln Glu Arg Glu Tyr Ile Arg Gln Gly Lys  
       50                  55                  60  
 Glu Ala Thr Ala Val Xaa Asp Gln Ile Leu Ala Gln Glu Glu Asn Trp  
   65                  70                  75                  80  
 Lys Phe Glu Lys Asn Asn Glu Tyr Gly Asp Thr Val Tyr Thr Ile Glu

1186

	85		90		95
Val Pro Phe His Gly Lys Thr Phe Ile Leu Lys Thr Phe Leu Pro Cys					
	100		105		110
Pro Ala Xaa Xaa Val Tyr Gln Glu Val Ile Leu Gln Pro Glu Arg Met					
	115		120		125
Val Leu Trp Asn Lys Thr Val Thr Ala Cys Gln Ile Leu Gln Arg Val					
	130		135		140
Glu Asp Asn Thr Leu Ile Ser Tyr Asp Val Ser Ala Arg Gly Cys Gly					
	145		150		155
					160
Arg Arg Xaa Leu Pro Gln Xaa Thr Ser					
	165				

&lt;210&gt; 1173

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (171)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1173

Glu Tyr Gly Asp Thr Val Tyr Thr Ile Glu Val Pro Phe His Gly Lys					
1		5		10	15
Thr Phe Ile Leu Lys Thr Phe Leu Pro Cys Pro Ala Glu Leu Val Tyr					
	20		25		30
Gln Glu Val Ile Leu Gln Pro Glu Arg Met Val Leu Trp Asn Lys Thr					
	35		40		45
Val Thr Ala Cys Gln Ile Leu Gln Arg Val Glu Asp Asn Thr Leu Ile					
	50		55		60
Ser Tyr Asp Val Ser Ala Gly Ala Ala Gly Gly Val Val Ser Pro Arg					
	65		70		75
					80
Asp Phe Val Asn Val Arg Arg Ile Glu Arg Arg Arg Asp Arg Tyr Leu					
	85		90		95
Ser Ser Gly Ile Ala Thr Ser His Ser Ala Lys Pro Pro Thr His Lys					
	100		105		110

1187

[illegible]

<210> 1174

<211> 436

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

<221> SITE

**<222> (426)**

<223> xaa equals any of the naturally occurring L-amino acids

<400> 1174

Arg His Gln Arg Arg Arg Ser Val Trp Arg Ser Arg Gly Xaa Cys Cys  
1 5 10 15

Arg Cys Cys Cys Thr Asn Arg Arg Ser Pro Gln Pro Cys Ala Ser Ser  
20 25 30

Leu Pro Pro Arg Thr Gly Glu Lys Gln Pro Arg Asn Phe Met Asn Lys  
35 40 45

His Gln Lys Pro Val Leu Thr Gly Gln Arg Phe Lys Thr Arg Lys Arg  
50 55 60

Asp Glu Lys Glu Lys Phe Glu Pro Thr Val Phe Arg Asp Thr Leu Val  
65 70 75 80

Gln Gly Leu Asn Glu Ala Gly Asp Asp Leu Glu Ala Val Ala Lys Phe  
85 90 95

1188

Leu Asp Ser Thr Gly Ser Arg Leu Asp Tyr Arg Arg Tyr Ala Asp Thr  
 100 105 110

Leu Phe Asp Ile Leu Val Ala Gly Ser Met Leu Ala Pro Gly Gly Thr  
 115 120 125

Arg Ile Asp Asp Gly Asp Lys Thr Lys Met Thr Asn His Cys Val Phe  
 130 135 140

Ser Ala Asn Glu Asp His Glu Thr Ile Arg Asn Tyr Ala Gln Val Phe  
 145 150 155 160

Asn Lys Leu Ile Arg Arg Tyr Lys Tyr Leu Glu Lys Ala Phe Glu Asp  
 165 170 175

Glu Met Lys Lys Leu Leu Leu Phe Leu Lys Ala Phe Ser Glu Thr Glu  
 180 185 190

Gln Thr Lys Leu Ala Met Leu Ser Gly Ile Leu Leu Gly Asn Gly Thr  
 195 200 205

Leu Pro Ala Thr Ile Leu Thr Ser Leu Phe Thr Asp Ser Leu Val Lys  
 210 215 220

Glu Gly Ile Ala Ala Ser Phe Ala Val Lys Leu Phe Lys Ala Trp Met  
 225 230 235 240

Ala Glu Lys Asp Ala Asn Ser Val Thr Ser Ser Leu Arg Lys Ala Asn  
 245 250 255

Leu Asp Lys Arg Leu Leu Glu Leu Phe Pro Val Asn Arg Gln Ser Val  
 260 265 270

Asp His Phe Ala Lys Tyr Phe Thr Asp Ala Gly Leu Lys Glu Leu Ser  
 275 280 285

Asp Phe Leu Arg Val Gln Gln Ser Leu Gly Thr Arg Lys Glu Leu Gln  
 290 295 300

Lys Glu Leu Gln Glu Arg Leu Ser Gln Glu Cys Pro Ile Lys Glu Val  
 305 310 315 320

Val Leu Tyr Val Lys Glu Glu Met Lys Arg Asn Asp Leu Pro Glu Thr  
 325 330 335

Ala Val Ile Gly Leu Leu Trp Thr Cys Ile Met Asn Ala Val Glu Trp  
 340 345 350

Asn Lys Lys Glu Glu Leu Val Ala Glu Gln Ala Leu Lys His Leu Lys  
 355 360 365



1189

Gln Tyr Ala Pro Leu Leu Ala Val Phe Ser Ser Gln Gly Gln Ser Glu  
 370 375 380  
 Leu Ile Leu Leu Gln Lys Val Gln Glu Tyr Cys Tyr Asp Asn Ile His  
 385 390 395 400  
 Phe Met Lys Ala Phe Gln Lys Ile Val Leu Pro Tyr Thr Ile Ser Val  
 405 410 415  
 Leu Leu Leu Arg Ser Glu His Gln Leu Xaa Ser Cys Arg Phe Gly Thr  
 420 425 430  
 Ser Gly Thr Ser  
 435

<210> 1175  
 <211> 366  
 <212> PRT  
 <213> Homo sapiens

<400> 1175  
 Thr Glu Pro Val Gly Tyr Thr Lys Ala Glu Glu Pro Ile Ala Met Arg  
 1 5 10 15  
 Ser Leu Gly Ala Leu Leu Leu Leu Leu Ser Ala Cys Leu Ala Val Ser  
 20 25 30  
 Ala Gly Pro Val Pro Thr Pro Pro Asp Asn Ile Gln Val Gln Glu Asn  
 35 40 45  
 Phe Asn Ile Ser Arg Ile Tyr Gly Lys Trp Tyr Asn Leu Ala Ile Gly  
 50 55 60  
 Ser Thr Cys Pro Trp Leu Lys Lys Ile Met Asp Arg Met Thr Val Ser  
 65 70 75 80  
 Thr Leu Val Leu Gly Glu Gly Ala Thr Glu Ala Glu Ile Ser Met Thr  
 85 90 95  
 Ser Thr Arg Trp Arg Lys Gly Val Cys Glu Glu Thr Ser Gly Ala Tyr  
 100 105 110  
 Glu Lys Thr Asp Thr Asp Gly Lys Phe Leu Tyr His Lys Ser Lys Trp  
 115 120 125  
 Asn Ile Thr Met Glu Ser Tyr Val Val His Thr Asn Tyr Asp Glu Tyr  
 130 135 140  
 Ala Ile Phe Leu Thr Lys Lys Phe Ser Arg His His Gly Pro Thr Ile

1190

145	150	155	160
Thr Ala Lys Leu Tyr Gly Arg Ala Pro Gln Leu Arg Glu Thr Leu Leu	165	170	175
Gln Asp Phe Arg Val Val Ala Gln Gly Val Gly Ile Pro Glu Asp Ser	180	185	190
Ile Phe Thr Met Ala Asp Arg Gly Glu Cys Val Pro Gly Glu Gln Glu	195	200	205
Pro Glu Pro Ile Leu Ile Pro Arg Val Arg Arg Ala Val Leu Pro Gln	210	215	220
Glu Glu Glu Gly Ser Gly Gly Gly Gln Leu Val Thr Glu Val Thr Lys	225	230	235
Lys Glu Asp Ser Cys Gln Leu Gly Tyr Ser Ala Gly Pro Cys Met Gly	245	250	255
Met Thr Ser Arg Tyr Phe Tyr Asn Gly Thr Ser Met Ala Cys Glu Thr	260	265	270
Phe Gln Tyr Gly Gly Cys Met Gly Asn Gly Asn Asn Phe Val Thr Glu	275	280	285
Lys Glu Cys Leu Gln Thr Cys Arg Thr Val Ala Ala Cys Asn Leu Pro	290	295	300
Ile Val Arg Gly Pro Cys Arg Ala Phe Ile Gln Leu Trp Ala Phe Asp	305	310	315
Ala Val Lys Gly Lys Cys Val Leu Phe Pro Tyr Gly Gly Cys Gln Gly	325	330	335
Asn Gly Asn Lys Phe Tyr Ser Glu Lys Glu Cys Arg Glu Tyr Cys Gly	340	345	350
Val Pro Gly Asp Gly Asp Glu Glu Leu Leu Arg Phe Ser Asn	355	360	365

&lt;210&gt; 1176

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

1191

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1176

Met	Pro	Arg	Ser	Ser	His	His	Pro	Pro	Arg	Arg	His	Tyr	His	His	His
1					5				10					15	
His	Tyr	His	Gln	Pro	Pro	Pro	Ser	Pro	Cys	Pro	Ser	Pro	Pro	Leu	Thr
			20					25						30	
Ser	Pro	Ser	Pro	Leu	Ser	Trp	Ile	Leu	Trp	Thr	Cys	Trp	Pro	Ser	Thr
			35				40					45			
Ala	Ala	Thr	Arg	Pro	Gly	Arg	Arg	Lys	Trp	Gly	Cys	Arg	Leu	Cys	Pro
		50				55					60				
Arg	His	Ser	Ser	Pro	Leu	Leu	Leu	Leu	His	Leu	Asn	Leu	Leu	Ala	Trp
65					70					75					80
Ala	Pro	Tyr	Pro	His	Pro	Ala	Thr	Thr	Arg	Gly	Asp	Arg	Lys	Gln	Lys
				85					90					95	
Lys	Arg	Asp	Gln	Asn	Lys	Ser	Ala	Xaa	Leu	Arg	Tyr	Arg	Gln	Arg	Lys
			100					105					110		
Gly	Ala	Gly	Gly	Val	Glu	Gly	Xaa	Gly	Lys	Gly	Lys	Leu	Xaa	Gly	Gly
		115					120					125			
Trp	Glu	Gly	Lys	Gly											
			130												

<210> 1177

<211> 583

<212> PRT

<213> Homo sapiens

<400> 1177

Thr	Ala	Gln	Arg	Pro	Arg	Ser	Pro	Glu	Asn	Cys	Arg	Pro	Ser	Thr	Met
1					5				10					15	

1192

Trp Leu Arg Ala Phe Ile Leu Ala Thr Leu Ser Ala Ser Ala Ala Trp  
                   20                  25                  30

Ala Gly His Pro Ser Ser Pro Pro Val Val Asp Thr Val His Gly Lys  
                   35                  40                  45

Val Leu Gly Lys Phe Val Ser Leu Glu Gly Phe Ala Gln Pro Val Ala  
                   50                  55                  60

Ile Phe Leu Gly Ile Pro Phe Ala Lys Pro Pro Leu Gly Pro Leu Arg  
                   65                  70                  75                  80

Phe Thr Pro Pro Gln Pro Ala Glu Pro Trp Ser Phe Val Lys Asn Ala  
                                   85                  90                  95

Thr Ser Tyr Pro Pro Met Cys Thr Gln Asp Pro Lys Ala Gly Gln Leu  
                   100                  105                  110

Leu Ser Glu Leu Phe Thr Asn Arg Lys Glu Asn Ile Pro Leu Lys Leu  
                   115                  120                  125

Ser Glu Asp Cys Leu Tyr Leu Asn Ile Tyr Thr Pro Ala Asp Leu Thr  
                   130                  135                  140

Lys Lys Asn Arg Leu Pro Val Met Val Trp Ile His Gly Gly Gly Leu  
                   145                  150                  155                  160

Met Val Gly Ala Ala Ser Thr Tyr Asp Gly Leu Ala Leu Ala Ala His  
                                   165                  170                  175

Glu Asn Val Val Val Val Thr Ile Gln Tyr Arg Leu Gly Ile Trp Gly  
                   180                  185                  190

Phe Phe Ser Thr Gly Asp Glu His Ser Arg Gly Asn Trp Gly His Leu  
                   195                  200                  205

Asp Gln Val Ala Ala Leu Arg Trp Val Gln Asp Asn Ile Ala Ser Phe  
                   210                  215                  220

Gly Gly Asn Pro Gly Ser Val Thr Ile Phe Gly Glu Ser Ala Gly Gly  
                   225                  230                  235                  240

Glu Ser Val Ser Val Leu Val Leu Ser Pro Leu Ala Lys Asn Leu Phe  
                   245                  250                  255

His Arg Ala Ile Ser Glu Ser Gly Val Ala Leu Thr Ser Val Leu Val  
                   260                  265                  270

Lys Lys Gly Asp Val Lys Pro Leu Ala Glu Gln Ile Ala Ile Thr Ala  
                   275                  280                  285

Gly Cys Lys Thr Thr Thr Ser Ala Val Met Val His Cys Leu Arg Gln  
 290 295 300  
 Lys Thr Glu Glu Glu Leu Leu Glu Thr Thr Leu Lys Met Lys Phe Leu  
 305 310 315 320  
 Ser Leu Asp Leu Gln Gly Asp Pro Arg Glu Ser Gln Pro Leu Leu Gly  
 325 330 335  
 Thr Val Ile Asp Gly Met Leu Leu Leu Lys Thr Pro Glu Glu Leu Gln  
 340 345 350  
 Ala Glu Arg Asn Phe His Thr Val Pro Tyr Met Val Gly Ile Asn Lys  
 355 360 365  
 Gln Glu Phe Gly Trp Leu Ile Pro Met Gln Leu Met Ser Tyr Pro Leu  
 370 375 380  
 Ser Glu Gly Gln Leu Asp Gln Lys Thr Ala Met Ser Leu Leu Trp Lys  
 385 390 395 400  
 Ser Tyr Pro Leu Val Cys Ile Ala Lys Glu Leu Ile Pro Glu Ala Thr  
 405 410 415  
 Glu Lys Tyr Leu Gly Gly Thr Asp Asp Thr Val Lys Lys Lys Asp Leu  
 420 425 430  
 Phe Leu Asp Leu Ile Ala Asp Val Met Phe Gly Val Pro Ser Val Ile  
 435 440 445  
 Val Ala Arg Asn His Arg Asp Ala Gly Ala Pro Thr Tyr Met Tyr Glu  
 450 455 460  
 Phe Gln Tyr Arg Pro Ser Phe Ser Ser Asp Met Lys Pro Lys Thr Val  
 465 470 475 480  
 Ile Gly Asp His Gly Asp Glu Leu Phe Ser Val Phe Gly Ala Pro Phe  
 485 490 495  
 Leu Lys Glu Gly Ala Ser Glu Glu Glu Ile Arg Leu Ser Lys Met Val  
 500 505 510  
 Met Lys Phe Trp Ala Asn Phe Ala Arg Asn Gly Asn Pro Asn Gly Glu  
 515 520 525  
 Gly Leu Pro His Trp Pro Glu Tyr Asn Gln Lys Glu Gly Tyr Leu Gln  
 530 535 540  
 Ile Gly Ala Asn Thr Gln Ala Ala Gln Lys Leu Lys Asp Lys Glu Val  
 545 550 555 560

1194

Ala Phe Trp Thr Asn Leu Phe Ala Lys Lys Ala Val Glu Lys Pro Pro  
565 570 575

Gln Thr Glu His Ile Glu Leu  
580

<210> 1178

<211> 98

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1178

Pro Gly Arg Xaa Gln Leu Arg Ala Lys Phe Ser Cys Pro Pro Ala Asp  
1 5 10 15

Arg	Val	Asn	Val	Thr	Val	Arg	Pro	Gly	Leu	Ala	Met	Ala	Leu	Ser	Gly
			20					25					30		

Ser Thr Glu Pro Cys Ala Gln Leu Ser Ile Ser Ser Ile Gly Val Val  
35 40 45

Gly Thr Ala Glu Asp Asn Arg Ser His Ser Ala His Phe Phe Glu Phe  
50 55 60

Leu Thr Lys Glu Leu Ala Leu Gly Gln Asp Arg Ile Leu Ile Arg Phe  
65 70 75 80

Phe Pro Leu Glu Ser Trp Gln Ile Gly Lys Ile Gly Thr Val Met Thr  
85 90 95

Phe Leu

**<210> 1179**

<211> 127

<212> PRT

<213> Homo sapiens

**<220>**

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

1195

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1179

Phe Arg Pro Ala Val Ser Xaa Gly Ser Leu Cys Leu Pro Ala Arg Thr  
 1 5 10 15

Ala His Ser Pro Ala Ser Ser Ala Ala Cys Arg Thr Met Ala Gln Gly  
 20 25 30

Gln Arg Lys Phe Gln Ala His Lys Pro Ala Lys Ser Lys Thr Ala Ala  
 35 40 45

Ala Xaa Ser Glu Lys Asn Arg Gly Pro Arg Lys Gly Gly Arg Val Ile  
 50 55 60

Ala Pro Xaa Lys Ala Arg Val Val Gln Gln Gln Lys Leu Lys Lys Asn  
 65 70 75 80

Leu Glu Val Gly Ile Arg Lys Lys Ile Glu His Asp Val Val Met Lys  
 85 90 95

Ala Ser Ser Ser Leu Pro Lys Lys Leu Ala Leu Leu Lys Ala Pro Ala  
 100 105 110

Lys Lys Lys Gly Ala Ala Ala Ala Thr Ser Ser Lys Thr Pro Ser  
 115 120 125

&lt;210&gt; 1180

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1180

Ser Ser Tyr Arg Ser Lys Ala Tyr Thr His Thr Lys Ile Thr Val Pro  
 1 5 10 15

Arg Glu Arg Val Cys Val Ser Val Arg Val Ser Val Cys Ala Arg Ala  
 20 25 30

Arg Ser Trp Pro Asn Val Arg Thr Leu His Lys Gly Gly Arg Ser Ser

1196

35                      40                      45  
 Tyr Arg Leu Phe Asn Val Arg Glu Thr Ile Phe Leu Leu Phe Gln Leu  
     50                      55                      60  
 Tyr Gln Ile Leu Val Pro Gln His Arg Asn Asp Ser Glu Ser Gln Thr  
     65                      70                      75                      80  
 Lys Cys Ile Ile Cys Ser Ile Leu Ile Leu Leu Leu His Ser  
                     85                      90

&lt;210&gt; 1181

&lt;211&gt; 353

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1181

Gly Ser Leu Asp Leu Trp Arg Gly Ala Glu Leu Ser Pro Gly His Ser  
     1                      5                      10                      15  
 Thr Leu Phe Thr Leu Cys Ala Cys Ala Lys Gly Ala Met Ala Ala Ser  
                     20                      25                      30  
 Cys Val Leu Leu His Thr Gly Gln Lys Met Pro Leu Ile Gly Leu Gly  
                     35                      40                      45  
 Thr Trp Lys Ser Glu Pro Gly Gln Val Lys Ala Ala Val Lys Tyr Ala  
                     50                      55                      60  
 Leu Ser Val Gly Tyr Arg His Ile Asp Cys Ala Ala Ile Tyr Gly Asn  
                     65                      70                      75                      80  
 Glu Pro Glu Ile Gly Glu Ala Leu Lys Glu Asp Val Gly Pro Gly Lys  
                     85                      90                      95  
 Ala Val Pro Arg Glu Glu Leu Phe Val Thr Ser Lys Leu Trp Asn Thr  
                     100                      105                      110  
 Lys His His Pro Glu Asp Val Glu Pro Ala Leu Arg Lys Thr Leu Ala  
                     115                      120                      125  
 Asp Leu Gln Leu Glu Tyr Leu Asp Leu Tyr Leu Met His Trp Pro Tyr  
                     130                      135                      140  
 Ala Phe Glu Arg Gly Asp Asn Pro Phe Pro Lys Asn Ala Asp Gly Thr  
                     145                      150                      155                      160  
 Ile Cys Tyr Asp Ser Thr His Tyr Lys Glu Thr Trp Lys Ala Leu Glu  
                     165                      170                      175



1197

Ala Leu Val Ala Lys Gly Leu Val Gln Ala Leu Gly Leu Ser Asn Phe  
 180 185 190  
 Asn Ser Arg Gln Ile Asp Asp Ile Leu Ser Val Ala Ser Val Arg Pro  
 195 200 205  
 Ala Val Leu Gln Val Glu Cys His Pro Tyr Leu Ala Gln Asn Glu Leu  
 210 215 220  
 Ile Ala His Cys Gln Ala Arg Gly Leu Glu Val Thr Ala Tyr Ser Pro  
 225 230 235 240  
 Leu Gly Ser Ser Asp Arg Ala Trp Arg Asp Pro Asp Glu Pro Val Leu  
 245 250 255  
 Leu Glu Glu Pro Val Val Leu Ala Leu Ala Glu Lys Tyr Gly Arg Ser  
 260 265 270  
 Pro Ala Gln Ile Leu Leu Arg Trp Gln Val Gln Arg Lys Val Ile Cys  
 275 280 285  
 Ile Pro Lys Ser Ile Thr Pro Ser Arg Ile Leu Gln Asn Ile Lys Val  
 290 295 300  
 Phe Asp Phe Thr Phe Ser Pro Glu Glu Met Lys Gln Leu Asn Ala Leu  
 305 310 315 320  
 Asn Lys Asn Trp Arg Tyr Ile Val Pro Met Leu Thr Val Asp Gly Lys  
 325 330 335  
 Arg Val Pro Arg Asp Ala Gly His Pro Leu Tyr Pro Phe Asn Asp Pro  
 340 345 350  
 Tyr

&lt;210&gt; 1182

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1182

Ala Arg Asp Ser Leu Gln Leu Ser Met Ala Gln Thr Ser Ser Tyr Phe  
 1 5 10 15  
 Met Leu Ile Ser Cys Leu Met Phe Leu Ser Gln Ser Gln Gly Gln Glu  
 20 25 30

1198

Ala Gln Thr Glu Leu Pro Gln Ala Arg Ile Ser Cys Pro Glu Gly Thr  
           35                          40                          45  
 Asn Ala Tyr Arg Ser Tyr Cys Tyr Tyr Phe Asn Glu Asp Arg Glu Thr  
           50                          55                          60  
 Trp Val Asp Ala Asp Leu Tyr Cys Gln Asn Met Asn Ser Gly Asn Leu  
           65                          70                          75                          80  
 Val Ser Val Leu Thr Gln Ala Glu Gly Ala Phe Val Ala Ser Leu Ile  
                           85                          90                          95  
 Lys Glu Ser Gly Thr Asp Asp Phe Asn Val Trp Ile Gly Leu His Asp  
                           100                          105                          110  
 Pro Lys Lys Asn Arg Arg Trp His Trp Ser Ser Gly Ser Leu Val Ser  
           115                          120                          125  
 Tyr Lys Ser Trp Gly Ile Gly Ala Pro Ser Ser Val Asn Pro Gly Tyr  
           130                          135                          140  
 Cys Val Ser Leu Thr Ser Ser Thr Gly Phe Gln Lys Trp Lys Asp Val  
           145                          150                          155                          160  
 Pro Cys Glu Asp Lys Phe Ser Phe Val Cys Lys Phe Lys Asn  
                           165                          170

&lt;210&gt; 1183

&lt;211&gt; 342

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (171)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (187)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1199

&lt;222&gt; (302)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (308)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1183

Ser Ile Phe Ser Tyr Ile Arg Leu Glu Leu Pro Ser Met Trp Leu Leu  
 1 5 10 15

Val Ser Val Ile Leu Ile Ser Arg Ile Ser Ser Val Gly Gly Glu Ala  
 20 25 30

Thr Phe Cys Asp Phe Pro Lys Ile Asn His Gly Ile Leu Tyr Asp Glu  
 35 40 45

Glu Lys Tyr Lys Pro Phe Ser Gln Val Pro Thr Gly Glu Val Phe Tyr  
 50 55 60

Tyr Ser Cys Glu Tyr Asn Phe Val Ser Pro Ser Lys Ser Phe Trp Thr  
 65 70 75 80

Arg Ile Thr Cys Thr Glu Glu Gly Trp Ser Pro Thr Pro Lys Cys Leu  
 85 90 95

Arg Leu Cys Phe Phe Pro Phe Val Glu Asn Gly His Ser Glu Ser Ser  
 100 105 110

Gly Gln Thr His Leu Glu Gly Asp Thr Val Gln Ile Ile Cys Asn Thr  
 115 120 125

Gly Tyr Arg Leu Gln Asn Asn Glu Asn Asn Ile Ser Cys Val Glu Arg  
 130 135 140

Gly Trp Ser Thr Pro Pro Lys Cys Arg Ser Thr Asp Thr Ser Cys Val  
 145 150 155 160

Asn Pro Pro Thr Val Gln Asn Ala Xaa Ile Xaa Ser Arg Gln Met Ser  
 165 170 175

Lys Tyr Pro Ser Gly Glu Arg Val Arg Tyr Xaa Cys Arg Ser Pro Tyr  
 180 185 190

Glu Met Phe Gly Asp Glu Glu Val Met Cys Leu Asn Gly Asn Trp Thr  
 195 200 205

Glu Pro Pro Gln Cys Lys Asp Ser Thr Gly Lys Cys Gly Pro Pro Pro  
 210 215 220

1200

Pro Ile Asp Asn Gly Asp Ile Thr Ser Phe Pro Leu Ser Val Tyr Ala  
 225 230 235 240

Pro Ala Ser Ser Val Glu Tyr Gln Cys Gln Asn Leu Tyr Gln Leu Glu  
 245 250 255

Gly Asn Lys Arg Ile Thr Cys Arg Asn Gly Gln Trp Ser Glu Pro Pro  
 260 265 270

Lys Cys Leu His Pro Cys Val Ile Ser Arg Glu Ile Met Glu Asn Tyr  
 275 280 285

Asn Ile Ala Leu Arg Trp Thr Ala Lys Gln Lys Leu Tyr Xaa Arg Thr  
 290 295 300

Gly Glu Ser Xaa Glu Phe Val Cys Lys Arg Gly Tyr Arg Leu Ser Ser  
 305 310 315 320

Arg Ser His Thr Leu Arg Thr Thr Cys Trp Asp Gly Lys Leu Glu Tyr  
 325 330 335

Pro Thr Cys Ala Lys Arg  
 340

<210> 1184

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1184

Pro Xaa Arg Pro Arg Gly Ala Ala Ala Ala Ala Ala Ala Gly Ala  
 1 5 10 15

Ala Met Pro Lys Gly Gly Arg Lys Gly Gly His Lys Gly Arg Ala Arg  
 20 25 30

Gln Tyr Thr Ser Pro Glu Glu Ile Asp Ala Gln Leu Gln Ala Glu Lys  
 35 40 45

1201

Gln Lys Ala Arg Glu Glu Glu Glu Gln Lys Glu Gly Gly Asp Gly Ala  
 50 55 60  
 Ala Gly Asp Pro Lys Lys Glu Lys Lys Ser Leu Asp Ser Asp Glu Ser  
 65 70 75 80  
 Glu Asp Glu Glu Asp Asp Tyr Gln Gln Lys Arg Lys Gly Val Glu Gly  
 85 90 95  
 Leu Ile Asp Ile Glu Asn Pro Asn Arg Val Ala Gln Thr Thr Lys Lys  
 100 105 110  
 Val Thr Gln Leu Asp Leu Asp Gly Pro Lys Glu Leu Ser Arg Arg Glu  
 115 120 125  
 Arg Glu Glu Ile Glu Lys Gln Lys Ala Lys Glu Arg Tyr Met Lys Met  
 130 135 140  
 His Leu Ala Gly Lys Thr Glu Gln Ala Lys Ala Asp Leu Ala Arg Leu  
 145 150 155 160  
 Xaa Ile Ile Arg Lys Gln Arg Glu Glu Ala Ala Arg Lys Lys Glu Glu  
 165 170 175  
 Glu Arg Lys Ala Lys Asp Asp Ala Thr Leu Ser Gly Lys Arg Met Gln  
 180 185 190  
 Ser Leu Ser Leu Asn Lys  
 195

&lt;210&gt; 1185

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1185

Ala His Ala Ser Ala His Ala Ser Gly Met Asp Leu Ser Leu Leu Trp  
 1 5 10 15  
 Val Leu Leu Pro Leu Val Thr Met Ala Trp Gly Gln Tyr Gly Asp Tyr  
 20 25 30  
 Gly Tyr Pro Tyr Gln Gln Tyr His Asp Tyr Ser Asp Asp Gly Trp Val  
 35 40 45  
 Asn Leu Asn Arg Gln Gly Phe Ser Tyr Gln Cys Pro Gln Gly Gln Val  
 50 55 60  
 Ile Val Ala Val Arg Ser Ile Phe Ser Lys Lys Glu Gly Ser Asp Arg

1202

65                      70                      75                      80  
 Gln Trp Asn Tyr Ala Cys Met Pro Thr Pro Gln Ser Leu Gly Glu Pro  
                                  85                      90                      95  
 Thr Glu Cys Trp Trp Glu Glu Ile Asn Arg Ala Gly Met Glu Trp Tyr  
                                  100                      105                      110  
 Gln Thr Cys Ser Asn Asn Gly Leu Val Ala Gly Phe Gln Ser Arg Tyr  
                                  115                      120                      125  
 Phe Glu Ser Val Leu Asp Arg Glu Trp Gln Phe Tyr Cys Cys Arg Tyr  
                                  130                      135                      140  
 Ser Lys Arg Cys Pro Tyr Ser Cys Trp Leu Thr Thr Glu Tyr Pro Gly  
 145                                   150                                   155                                   160  
 His Tyr Gly Glu Glu Met Asp Met Ile Ser Tyr Asn Tyr Asp Tyr Tyr  
                                  165                                   170                                   175  
 Ile Arg Gly Ala Thr Thr Thr Phe Ser Ala Val Glu Arg Asp Arg Gln  
                                  180                                   185                                   190  
 Trp Lys Phe Ile Met Cys Arg Met Thr Glu Tyr Asp Cys Glu Phe Ala  
                                  195                                   200                                   205  
 Asn Val  
 210

&lt;210&gt; 1186

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1186

Arg Ala Ile Tyr Phe Leu Arg Val His Arg Leu Trp Ser Ser Ile Ser  
 1                                   5                                   10                                   15  
 Leu Leu Phe Phe Pro Ser Ala Lys Met Ala Leu Glu Thr Val Pro Lys  
                                  20                                   25                                   30  
 Asp Leu Arg His Leu Arg Ala Cys Leu Leu Cys Ser Leu Val Lys Thr  
                                  35                                   40                                   45  
 Ile Asp Gln Phe Glu Tyr Asp Gly Cys Asp Asn Cys Asp Ala Tyr Leu  
                                  50                                   55                                   60  
 Gln Met Lys Gly Asn Arg Glu Met Val Tyr Asp Cys Thr Ser Ser Ser  
 65                                   70                                   75                                   80

Phe	Asp	Gly	Ile	Ile	Ala	Met	Met	Ser	Pro	Glu	Asp	Ser	Trp	Val	Ser
				85					90					95	
Lys	Trp	Gln	Arg	Val	Ser	Asn	Phe	Lys	Pro	Gly	Val	Tyr	Ala	Val	Ser
			100					105					110		
Val	Thr	Gly	Arg	Leu	Pro	Gln	Gly	Ile	Val	Arg	Glu	Leu	Lys	Ser	Arg
		115					120					125			
Gly	Val	Ala	Tyr	Lys	Ser	Arg	Asp	Thr	Ala	Ile	Lys	Thr			
	130					135					140				

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<210> 1187
<211> 76
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1187
Leu Leu Gly Ser Cys Leu Gln Glu Ala Met Thr Leu Asn Ser Glu Pro
 1             5             10             15
Tyr Ser Val Leu Thr Ser Gly Ser His Val Phe Leu Cys Gln Val Ile
      20             25             30
Lys Tyr Leu Val Leu Val Phe Cys Leu Xaa Pro Lys Leu Pro Leu Trp
      35             40             45
Val His Arg Arg Leu Gly Ser Ile Val Arg Met Ala Ile Arg Glu Tyr
      50             55             60
Lys Xaa Gly Phe Ser Lys Gly Leu Gly Xaa Asp Ser
 65             70             75

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1204

&lt;210&gt; 1188

&lt;211&gt; 516

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1188

Ile Arg Ile Ala Ala Leu Asp Asp Phe Arg Thr Ser Leu Thr Met Ser  
 1 5 10 15

Ser Thr Arg Ser Gln Asn Pro His Gly Leu Lys Gln Ile Gly Leu Asp  
 20 25 30

Gln Ile Trp Asp Asp Leu Arg Ala Gly Ile Gln Gln Val Tyr Thr Arg  
 35 40 45

Gln Ser Met Ala Lys Ser Arg Tyr Met Glu Leu Tyr Thr His Val Tyr  
 50 55 60

Asn Tyr Cys Thr Ser Val His Gln Ser Asn Gln Ala Arg Gly Ala Gly  
 65 70 75 80

Val Pro Pro Ser Lys Ser Lys Lys Gly Gln Thr Pro Gly Gly Ala Gln  
 85 90 95

Phe Val Gly Leu Glu Leu Tyr Lys Arg Leu Lys Glu Phe Leu Lys Asn  
 100 105 110

Tyr Leu Thr Asn Leu Leu Lys Asp Gly Glu Asp Leu Met Asp Glu Ser  
 115 120 125

Val Leu Lys Phe Tyr Thr Gln Gln Trp Glu Asp Tyr Arg Phe Ser Ser  
 130 135 140

Lys Val Leu Asn Gly Ile Cys Ala Tyr Leu Asn Arg His Trp Val Arg  
 145 150 155 160

Arg Glu Cys Asp Glu Gly Arg Lys Gly Ile Tyr Glu Ile Tyr Ser Leu  
 165 170 175

Ala Leu Val Thr Trp Arg Asp Cys Leu Phe Arg Pro Leu Asn Lys Gln  
 180 185 190

Val Thr Asn Ala Val Leu Lys Leu Ile Glu Lys Glu Arg Asn Gly Glu  
 195 200 205

Thr Ile Asn Thr Arg Leu Ile Ser Gly Val Val Gln Ser Tyr Val Glu  
 210 215 220

Leu Gly Leu Asn Glu Asp Asp Ala Phe Ala Lys Gly Pro Thr Leu Thr



1205

225		230		235		240
Val Tyr Lys Glu Ser Phe Glu Ser Gln Phe Leu Ala Asp Thr Glu Arg						
	245		250		255	
Phe Tyr Thr Arg Glu Ser Thr Glu Phe Leu Gln Gln Asn Pro Val Thr						
	260		265		270	
Glu Tyr Met Lys Lys Ala Glu Ala Arg Leu Leu Glu Glu Gln Arg Arg						
	275		280		285	
Val Gln Val Tyr Leu His Glu Ser Thr Gln Asp Glu Leu Ala Arg Lys						
	290		295		300	
Cys Glu Gln Val Leu Ile Glu Lys His Leu Glu Ile Phe His Thr Glu						
305		310		315		320
Phe Gln Asn Leu Leu Asp Ala Asp Lys Asn Glu Asp Leu Gly Arg Met						
	325		330		335	
Tyr Asn Leu Val Ser Arg Ile Gln Asp Gly Leu Gly Glu Leu Lys Lys						
	340		345		350	
Leu Leu Glu Thr His Ile His Asn Gln Gly Leu Ala Ala Ile Glu Lys						
	355		360		365	
Cys Gly Glu Ala Ala Leu Asn Asp Pro Lys Met Tyr Val Gln Thr Val						
	370		375		380	
Leu Asp Val His Lys Lys Tyr Asn Ala Leu Val Met Ser Ala Phe Asn						
385		390		395		400
Asn Asp Ala Gly Phe Val Ala Ala Leu Asp Lys Ala Cys Gly Arg Phe						
	405		410		415	
Ile Asn Asn Asn Ala Val Thr Lys Met Ala Gln Ser Ser Ser Lys Ser						
	420		425		430	
Pro Glu Leu Leu Ala Arg Tyr Cys Asp Ser Leu Leu Lys Lys Ser Ser						
	435		440		445	
Lys Asn Pro Glu Glu Ala Glu Leu Glu Asp Thr Leu Asn Gln Val Met						
	450		455		460	
Val Val Phe Lys Tyr Ile Glu Asp Lys Asp Val Phe Gln Lys Phe Tyr						
465		470		475		480
Ala Lys Met Leu Ala Lys Arg Leu Val His Gln Asn Ser Ala Ser Asp						
	485		490		495	
Asp Ala Glu Ala Ser Met Ile Ser Lys Leu Lys Gln Ala Cys Gly Phe						

1206

500

505

510

Glu Tyr Thr Ser  
515

&lt;210&gt; 1189

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (254)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (274)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1207

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (275)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (280)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1189

Met Ser Tyr Cys Asp Glu Ser Arg Leu Ser Asn Leu Leu Arg Arg Ile  
 1 5 10 15

Thr Arg Glu Xaa Asp Arg Asp Xaa Arg Leu Xaa Thr Val Lys Gln Leu  
 20 25 30

Lys Glu Phe Ile Gln Gln Pro Glu Asn Lys Leu Val Leu Val Lys Gln  
 35 40 45

Leu Asp Ile Leu Ala Ala Xaa His Asp Val Leu Asn Glu Ser Ser Lys  
 50 55 60

Leu Leu Gln Glu Leu Arg Gln Glu Gly Ala Cys Cys Leu Gly Leu Leu  
 65 70 75 80

Cys Ala Ser Leu Ser Tyr Glu Ala Glu Lys Ile Phe Lys Trp Ile Phe  
 85 90 95

Ser Lys Phe Ser Ser Ser Ala Lys Asp Glu Val Lys Leu Leu Tyr Leu  
 100 105 110

Cys Ala Thr Tyr Lys Ala Leu Glu Thr Val Gly Glu Lys Lys Ala Phe  
 115 120 125

Ser Ser Val Met Gln Leu Val Met Thr Ser Leu Gln Ser Ile Leu Glu  
 130 135 140

Asn Val Asp Thr Pro Glu Leu Leu Cys Lys Cys Val Lys Cys Ile Leu  
 145 150 155 160

Leu Val Ala Arg Cys Tyr Pro His Ile Phe Ser Xaa Asn Phe Arg Asp  
 165 170 175

Thr Val Asp Ile Leu Val Gly Trp His Arg Asp His Thr Gln Lys Pro  
 180 185 190

Ser Leu Thr Gln Gln Val Ser Gly Trp Leu Gln Ser Leu Glu Pro Phe  
 195 200 205

1208

Trp Val Ala Asp Leu Ala Phe Pro Thr Thr Leu Leu Gly Gln Phe Leu  
 210 215 220  
 Glu Asp Met Glu Ala Tyr Ala Glu Asp Leu Ser His Val Ala Ser Gly  
 225 230 235 240  
 Glu Ser Val Asp Glu Asp Val Pro Pro Pro Ser Val Ser Xaa Pro Lys  
 245 250 255  
 Leu Ala Ala Leu Leu Arg Val Phe Ser Thr Val Val Arg Ser Xaa Gly  
 260 265 270  
 Glu Xaa Xaa Ser Pro Ile Arg Xaa Leu Gln Leu Leu Arg His Thr  
 275 280 285

&lt;210&gt; 1190

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1190

Arg Pro Pro Ser Arg Trp Ser Trp Trp Gln Gly Lys Pro Thr Gly Gly  
 1 5 10 15  
 Val Cys Val Ala Ala Ala Arg Ser Ser Pro Ser Val Thr Ala Pro Thr  
 20 25 30  
 Ser Ser Asn Ala Leu Ala Tyr Leu His Ser Ser Ser Arg Pro Lys Arg  
 35 40 45  
 Pro Ala Trp Trp His Ser Val Pro Ala Arg Pro Leu Arg Gly Pro Arg  
 50 55 60  
 Thr Ala Met Ala Pro Thr Gly Val Ser Ala Cys Arg Arg Gln Lys Trp  
 65 70 75 80  
 Ala Pro His Ser Glu Gly Ala Ala Ala Val Gln Pro Gln Val Ala Leu  
 85 90 95  
 Ala Pro Gly Leu  
 100

&lt;210&gt; 1191

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1209

&lt;400&gt; 1191

Asn Asp Val Ile His Gln Tyr Val Tyr Met Tyr Phe Tyr Ile Asp Leu  
 1 5 10 15

Glu Asn Thr Ala Lys Thr Phe Met Thr Ser Cys Ile Thr Ala Phe Val  
 20 25 30

Tyr Ile Phe Leu Thr Val Ile Ile Pro Thr Gly Thr Leu Thr Val Ala  
 35 40 45

Leu Leu Asn Val Gln Asn Leu Tyr Phe Arg Asn Asn Lys Lys Lys Asp  
 50 55 60

Thr Tyr Met Phe Pro Lys Gln Trp Cys Gly Glu Cys Val Arg Lys Thr  
 65 70 75 80

Asn Leu Ile Gly Ser Thr Asn Thr Lys Cys Ile Thr Asn Ala Pro Val  
 85 90 95

His Val Phe Val Leu Lys Arg Val Asn Glu Asp Leu Tyr Ile Ser Ile  
 100 105 110

Asn Asp Ile  
 115

&lt;210&gt; 1192

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1192

Arg Ile Pro Pro Glu Ser Leu Ala Arg Glu Xaa Arg Xaa Thr Lys Ser  
 1 5 10 15

Phe Ser Asn Pro Arg Arg Pro Asp Arg Gly Thr Trp Ser Leu Ser Glu  
 20 25 30

Lys Phe Asn Leu Arg Asp Lys Met Gln Trp Thr Ser Leu Leu Leu Leu  
 35 40 45

1210

Ala Gly Leu Phe Ser Leu Ser Gln Ala Gln Tyr Glu Asp Asp Pro His  
 50 55 60

Trp Trp Phe His Tyr Leu Arg Ser Gln Gln Ser Thr Tyr Tyr Asp Pro  
 65 70 75 80

Tyr Asp Pro Tyr Pro Tyr Glu Thr Tyr Glu Pro Tyr Pro Tyr Gly Val  
 85 90 95

Asp Glu Gly Pro Ala Tyr Thr Tyr Gly Ser Pro Ser Pro Pro Asp Pro  
 100 105 110

Arg Asp Cys Pro Gln Glu Cys Asp Cys Pro Pro Asn Phe Pro Thr Ala  
 115 120 125

Met Tyr Cys Asp Asn Arg Asn Leu Lys Tyr Leu Pro Phe Val Pro Ser  
 130 135 140

Arg Met Lys Tyr Val Tyr Phe Gln Asn Asn Gln Ile Thr Ser Ile Gln  
 145 150 155 160

Glu Gly Val Phe Asp Asn Ala Thr Gly Leu Leu Trp Ile Ala Leu His  
 165 170 175

Gly Asn Gln Ile Thr Ser Asp Lys Val Gly Arg Lys Val Phe Ser Lys  
 180 185 190

Leu Arg His Leu Glu Arg Leu Tyr Leu Asp His Asn Asn Leu Thr Arg  
 195 200 205

Met Pro Gly Pro Leu Pro Arg Ser Leu Arg Glu Leu His Leu Asp His  
 210 215 220

Asn Gln Ile Ser Arg Val Pro Asn Asn Ala Leu Glu Gly Leu Glu Asn  
 225 230 235 240

Leu Thr Ala Leu Tyr Leu Gln His Asn Glu Ile Gln Glu Val Gly Ser  
 245 250 255

Ser Met Arg Gly Leu Arg Ser Leu Ile Leu Leu Asp Leu Ser Tyr Asn  
 260 265 270

His Leu Arg Lys Val Pro Asp Gly Leu Pro Ser Ala Leu Glu Gln Leu  
 275 280 285

Tyr Met Glu His Asn Asn Val Tyr Thr Val Pro Asp Ser Tyr Phe Arg  
 290 295 300

Gly Ala Pro Lys Leu Leu Tyr Val Arg Leu Ser His Asn Ser Leu Thr  
 305 310 315 320

1211

Asn Asn Gly Leu Ala Ser Asn Thr Phe Asn Ser Ser Ser Leu Leu Glu  
                   325                  330                  335

Leu Asp Leu Ser Tyr Asn Gln Leu Gln Lys Ile Pro Pro Val Asn Thr  
                   340                  345                  350

Asn Leu Glu Asn Leu Tyr Leu Gln Gly Asn Arg Ile Asn Glu Phe Ser  
                   355                  360                  365

Ile Ser Ser Phe Cys Thr Val Val Asp Val Val Asn Phe Ser Lys Leu  
                   370                  375                  380

Gln Val Leu Arg Leu Asp Gly Asn Glu Ile Lys Arg Ser Ala Met Pro  
                   385                  390                  395                  400

Ala Asp Ala Pro Leu Cys Leu Arg Leu Ala Ser Leu Ile Glu Ile  
                   405                  410                  415

&lt;210&gt; 1193

&lt;211&gt; 620

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (375)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (501)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (532)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (546)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1193

Ser Ala Val Thr Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr Tyr Trp  
   1                  5                  10                  15

Ser Glu Phe Ser Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val

1212

20					25					30						
Met	Ala	Glu	Glu	Arg	Val	Val	Met	Leu	Pro	Pro	Arg	Ala	Arg	Ser	Leu	
35					40					45						
Lys	Ser	Phe	Val	Val	Thr	Ser	Val	Val	Ala	Phe	Pro	Thr	Asp	Ser	Lys	
50					55					60						
Thr	Val	Gln	Arg	Thr	Gln	Asp	Asn	Ser	Cys	Ser	Phe	Gly	Leu	His	Ala	
65					70					75					80	
Arg	Gly	Val	Glu	Leu	Met	Arg	Phe	Thr	Thr	Pro	Gly	Phe	Pro	Asp	Ser	
85					90					95						
Pro	Tyr	Pro	Ala	His	Ala	Arg	Cys	Gln	Trp	Ala	Leu	Arg	Gly	Asp	Ala	
100					105					110						
Asp	Ser	Val	Leu	Ser	Leu	Thr	Phe	Arg	Ser	Phe	Asp	Leu	Ala	Ser	Cys	
115					120					125						
Asp	Glu	Arg	Gly	Ser	Asp	Leu	Val	Thr	Val	Tyr	Asn	Thr	Leu	Ser	Pro	
130					135					140						
Met	Glu	Pro	His	Ala	Leu	Val	Gln	Leu	Cys	Gly	Thr	Tyr	Pro	Pro	Ser	
145					150					155					160	
Tyr	Asn	Leu	Thr	Phe	His	Ser	Ser	Gln	Asn	Val	Leu	Leu	Ile	Thr	Leu	
165					170					175						
Ile	Thr	Asn	Thr	Glu	Arg	Arg	His	Pro	Gly	Phe	Glu	Ala	Thr	Phe	Phe	
180					185					190						
Gln	Leu	Pro	Arg	Met	Ser	Ser	Cys	Gly	Gly	Arg	Leu	Arg	Lys	Ala	Gln	
195					200					205						
Gly	Thr	Phe	Asn	Ser	Pro	Tyr	Tyr	Pro	Gly	His	Tyr	Pro	Pro	Asn	Ile	
210					215					220						
Asp	Cys	Thr	Trp	Asn	Ile	Glu	Val	Pro	Asn	Asn	Gln	His	Val	Lys	Val	
225					230					235					240	
Arg	Phe	Lys	Phe	Phe	Tyr	Leu	Leu	Glu	Pro	Gly	Val	Pro	Ala	Gly	Thr	
245					250					255						
Cys	Pro	Lys	Asp	Tyr	Val	Glu	Ile	Asn	Gly	Glu	Lys	Tyr	Cys	Gly	Glu	
260					265					270						
Arg	Ser	Gln	Phe	Val	Val	Thr	Ser	Asn	Ser	Asn	Lys	Ile	Thr	Val	Arg	
275					280					285						
Phe	His	Ser	Asp	Gln	Ser	Tyr	Thr	Asp	Thr	Gly	Phe	Leu	Ala	Glu	Tyr	



1213

290	295	300
Leu Ser Tyr Asp Ser Ser Asp Pro Cys Pro Gly Gln Phe Thr Cys Arg		
305	310	315 320
Thr Gly Arg Cys Ile Arg Lys Glu Leu Arg Cys Asp Gly Trp Ala Asp		
	325	330 335
Cys Thr Asp His Ser Asp Glu Leu Asn Cys Ser Cys Asp Ala Gly His		
	340	345 350
Gln Phe Thr Cys Lys Asn Lys Phe Cys Lys Pro Leu Phe Trp Val Cys		
	355	360 365
Asp Ser Val Asn Asp Cys Xaa Asp Asn Ser Asp Glu Gln Gly Cys Ser		
	370	375 380
Cys Pro Ala Gln Thr Phe Arg Cys Ser Asn Gly Lys Cys Leu Ser Lys		
	385	390 395 400
Ser Gln Gln Cys Asn Gly Lys Asp Asp Cys Gly Asp Gly Ser Asp Glu		
	405	410 415
Ala Ser Cys Pro Lys Val Asn Val Val Thr Cys Thr Lys His Thr Tyr		
	420	425 430
Arg Cys Leu Asn Gly Leu Cys Leu Ser Lys Gly Asn Pro Glu Cys Asp		
	435	440 445
Gly Lys Glu Asp Cys Ser Asp Gly Ser Asp Glu Lys Asp Cys Asp Cys		
	450	455 460
Gly Leu Arg Ser Phe Thr Arg Gln Ala Arg Val Val Gly Gly Thr Asp		
	465	470 475 480
Ala Asp Glu Gly Glu Trp Pro Trp Gln Val Ser Leu His Ala Leu Gly		
	485	490 495
Gln Gly Thr Ser Xaa Gly Ala Ser Leu Ile Ser Pro Asn Trp Leu Val		
	500	505 510
Ser Ala Ala His Cys Tyr Ile Asp Asp Arg Gly Phe Arg Tyr Ser Asp		
	515	520 525
Pro Thr Gln Xaa Thr Ala Phe Leu Gly Leu His Asp Gln Ser Gln Arg		
	530	535 540
Ser Xaa Leu Gly Cys Arg Ser Ala Gly Ser Ser Ala Ser Ser Pro Thr		
	545	550 555 560
Pro Ser Ser Met Thr Ser Pro Ser Thr Met Thr Ser Arg Cys Trp Ser		

1214

565 570 575  
Trp Arg Asn Arg Gln Ser Thr Ala Pro Trp Cys Gly Pro Ser Ala Cys  
580 585 590  
Arg Thr Pro Pro Met Ser Ser Leu Pro Ala Arg Pro Ser Gly Ser Arg  
595 600 605  
Ala Gly Asp Thr Pro Ser Met Glu Ala Leu Ala Arg  
610 615 620

<210> 1194  
<211> 51  
<212> PRT  
<213> Homo sapiens

<400> 1194  
Arg Thr Leu Cys His Leu Thr Thr Leu Asp Glu Leu Ser Cys Gln Arg  
1 5 10 15  
Glu Asn Leu Met Phe Lys Glu His Phe Pro Leu Ala Asp Val Thr Ala  
20 25 30  
Gly Phe Val Phe His Met Cys Phe Ser Tyr Thr His Leu Asn Ala Phe  
35 40 45  
Lys His Leu  
50

<210> 1195  
<211> 269  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (245)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (246)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (257)

1215

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (266)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1195

Pro	Ala	Glu	Asp	Ala	Ala	Ser	Leu	Thr	Trp	Gly	Val	Ala	Ile	Arg	Ala
1				5					10					15	

Gly	Arg	Ser	Trp	Phe	Ser	Gly	Pro	Ala	Ala	Pro	Ala	Ala	Ala	Met	Ser
		20					25							30	

Phe	Phe	Pro	Glu	Leu	Tyr	Phe	Asn	Val	Asp	Asn	Gly	Tyr	Leu	Glu	Gly
		35					40					45			

Leu	Val	Arg	Gly	Leu	Lys	Ala	Gly	Val	Leu	Ser	Gln	Ala	Asp	Tyr	Leu
	50					55					60				

Asn	Leu	Val	Gln	Cys	Glu	Thr	Leu	Glu	Asp	Leu	Lys	Leu	His	Leu	Gln
65					70					75					80

Ser	Thr	Asp	Tyr	Gly	Asn	Phe	Leu	Ala	Asn	Glu	Ala	Ser	Pro	Leu	Thr
			85						90					95	

Val	Ser	Val	Ile	Asp	Asp	Arg	Leu	Lys	Glu	Lys	Met	Val	Val	Glu	Phe
			100					105						110	

Arg	His	Met	Arg	Asn	His	Ala	Tyr	Glu	Pro	Leu	Ala	Ser	Phe	Leu	Asp
		115					120					125			

Phe	Ile	Thr	Tyr	Ser	Tyr	Met	Ile	Asp	Asn	Val	Ile	Leu	Leu	Ile	Thr
	130					135					140				

Gly	Thr	Leu	His	Gln	Arg	Ser	Ile	Ala	Glu	Leu	Val	Pro	Lys	Cys	His
145				150						155					160

Pro	Leu	Gly	Ser	Phe	Glu	Gln	Met	Glu	Ala	Val	Asn	Ile	Ala	Gln	Thr
			165					170						175	

Pro	Ala	Glu	Leu	Tyr	Asn	Ala	Ile	Leu	Val	Asp	Thr	Pro	Leu	Ala	Ala
		180					185						190		

Phe	Phe	Gln	Asp	Cys	Ile	Ser	Glu	Gln	Asp	Leu	Asp	Glu	Met	Asn	Ile
	195						200					205			

Glu	Ile	Ile	Arg	Asn	Thr	Leu	Tyr	Lys	Ala	Tyr	Leu	Glu	Ser	Phe	Tyr
	210					215					220				

Lys	Phe	Cys	Thr	Leu	Leu	Gly	Gly	Thr	Thr	Ala	Asp	Ala	Met	Cys	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1216

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225                230                235                240
Ile Leu Glu Phe Xaa Xaa Gln Thr Val Pro Ser Ser Phe His Thr Val
                245                250                255
Xaa Gly Ser Thr Leu Arg Ala Trp Arg Xaa Gly Ser Gly
                260                265

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<210> 1196
<211> 301
<212> PRT
<213> Homo sapiens
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```

<400> 1196
Arg His Glu Pro Ala Pro Arg Glu Ala Pro Gly Ser Arg Ala Ser Ala
  1              5              10              15

Phe Leu Leu Pro Ser Phe Leu Pro Gly Pro Arg Leu Val Pro Ala Gly
      20              25              30

His Pro Thr Ala Thr Met Phe Val Pro Cys Gly Glu Ser Ala Pro Asp
      35              40              45

Leu Ala Gly Phe Thr Leu Leu Met Pro Ala Val Ser Val Gly Asn Val
      50              55              60

Gly Gln Leu Ala Met Asp Leu Ile Ile Ser Thr Leu Asn Met Ser Lys
  65              70              75              80

Ile Gly Tyr Phe Tyr Thr Asp Cys Leu Val Pro Met Val Gly Asn Asn
      85              90              95

Pro Tyr Ala Thr Thr Glu Gly Asn Ser Thr Glu Leu Ser Ile Asn Ala
      100             105             110

Glu Val Tyr Ser Leu Pro Ser Arg Lys Leu Val Ala Leu Gln Leu Arg
      115             120             125

Ser Ile Phe Ile Lys Tyr Lys Ser Lys Pro Phe Cys Glu Lys Leu Leu
  130             135             140

Ser Trp Val Lys Ser Ser Gly Cys Ala Arg Val Ile Val Leu Ser Ser
  145             150             155             160

Ser His Ser Tyr Gln Arg Asn Asp Leu Gln Leu Arg Ser Thr Pro Phe
      165             170             175

Arg Tyr Leu Leu Thr Pro Ser Met Gln Lys Ser Val Gln Asn Lys Ile
      180             185             190

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1217

Lys Ser Leu Asn Trp Glu Glu Met Glu Lys Ser Arg Cys Ile Pro Glu  
 195 200 205

Ile Asp Asp Ser Glu Phe Cys Ile Arg Ile Pro Gly Gly Gly Ile Thr  
 210 215 220

Lys Thr Leu Tyr Asp Glu Ser Cys Ser Lys Glu Ile Gln Met Ala Val  
 225 230 235 240

Leu Leu Lys Phe Val Ser Glu Gly Asp Asn Ile Pro Asp Ala Leu Gly  
 245 250 255

Leu Val Glu Tyr Leu Asn Glu Trp Leu Gln Ile Leu Lys Pro Leu Ser  
 260 265 270

Asp Asp Pro Thr Val Ser Ala Ser Arg Trp Lys Ile Pro Ser Ser Trp  
 275 280 285

Arg Leu Leu Phe Gly Ser Gly Leu Pro Pro Ala Leu Phe  
 290 295 300

<210> 1197

<211> 246

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (230)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1197

Gly Thr Arg Asp Leu Leu Ala Ala Ala Ala Thr Gly Lys Leu  
 1 5 10 15

Lys Ser Phe Ala Arg Lys Phe Ile Asn Leu Asn Glu Phe Thr Thr Tyr  
 20 25 30

1218

Gly Ser Glu Glu Ser Thr Lys Pro Ala Ser Val Arg Ala Leu Leu Phe  
                   35                  40                  45  
 Xaa Ile Ser Phe Leu Met Leu Cys His Val Ala Gln Thr Tyr Gly Ser  
           50                  55                  60  
 Xaa Val Ile Leu Ser Glu Ser Arg Thr Gly Ala Glu Val Pro Phe Phe  
       65                  70                  75                  80  
 Glu Thr Trp Met Gln Thr Cys Met Pro Glu Glu Gly Lys Ile Leu Asn  
                   85                  90                  95  
 Pro Asp His Pro Cys Phe Arg Pro Asp Ser Thr Lys Val Glu Ser Leu  
                   100                  105                  110  
 Val Ala Leu Leu Asn Asn Ser Ser Glu Met Lys Leu Val Gln Met Lys  
           115                  120                  125  
 Trp His Glu Ala Cys Leu Ser Ile Ser Ala Ala Ile Leu Glu Ile Leu  
       130                  135                  140  
 Asn Ala Trp Glu Asn Gly Val Leu Ala Phe Glu Ser Ile Gln Lys Ile  
       145                  150                  155                  160  
 Thr Asp Asn Ile Lys Gly Lys Val Cys Ser Leu Ala Val Cys Ala Val  
                   165                  170                  175  
 Ala Trp Leu Val Ala His Val Arg Met Leu Gly Leu Asp Glu Arg Glu  
           180                  185                  190  
 Lys Ser Leu Gln Met Ile Arg Gln Leu Ala Gly Pro Leu Phe Ser Glu  
       195                  200                  205  
 Asn Thr Leu Gln Phe Tyr Asn Glu Arg Val Val Ile Met Asn Ser Ile  
       210                  215                  220  
 Leu Gly Ala His Val Xaa Arg Arg Ala Ala Ala Asp Ser His Ala Gly  
       225                  230                  235                  240  
 Phe Lys Phe Pro Ser Asn  
                   245

&lt;210&gt; 1198

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1219

&lt;222&gt; (203)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (460)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (461)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1198

Lys Asn Met Glu Thr Glu Gln Pro Glu Glu Thr Phe Pro Asn Thr Glu  
 1 5 10 15

Thr Asn Gly Glu Phe Gly Lys Arg Pro Ala Glu Asp Met Glu Glu Glu  
 20 25 30

Gln Ala Phe Lys Arg Ser Arg Asn Thr Asp Glu Met Val Glu Leu Arg  
 35 40 45

Ile Leu Leu Gln Ser Lys Asn Ala Gly Ala Val Ile Gly Lys Gly Gly  
 50 55 60

Lys Asn Ile Lys Ala Leu Arg Thr Asp Tyr Asn Ala Ser Val Ser Val  
 65 70 75 80

Pro Asp Ser Ser Gly Pro Glu Arg Ile Leu Ser Ile Ser Ala Asp Ile  
 85 90 95

Glu Thr Ile Gly Glu Ile Leu Lys Lys Ile Ile Pro Thr Leu Glu Glu  
 100 105 110

Gly Leu Gln Leu Pro Ser Pro Thr Ala Thr Ser Gln Leu Pro Leu Glu  
 115 120 125

Ser Asp Ala Val Glu Cys Leu Asn Tyr Gln His Tyr Lys Gly Ser Asp  
 130 135 140

Phe Asp Cys Glu Leu Arg Leu Leu Ile His Gln Ser Leu Ala Gly Gly  
 145 150 155 160

Ile Ile Gly Val Lys Gly Ala Lys Ile Lys Glu Leu Arg Glu Asn Thr  
 165 170 175

Gln Thr Thr Ile Lys Leu Phe Gln Glu Cys Cys Pro His Ser Thr Asp  
 180 185 190

Arg Val Val Leu Ile Gly Gly Lys Pro Asp Xaa Val Val Glu Cys Ile

1220

195	200	205
Lys Ile Ile Leu Asp Leu Ile Ser Glu Ser Pro Ile Lys Gly Arg Ala		
210	215	220
Gln Pro Tyr Asp Pro Asn Phe Tyr Asp Glu Thr Tyr Asp Tyr Gly Gly		
225	230	235 240
Phe Thr Met Met Phe Asp Asp Arg Arg Gly Arg Pro Val Gly Phe Pro		
	245	250 255
Met Arg Gly Arg Gly Gly Phe Asp Arg Met Pro Pro Gly Arg Gly Gly		
	260	265 270
Arg Pro Met Pro Pro Ser Arg Arg Asp Tyr Asp Asp Met Ser Pro Arg		
	275	280 285
Arg Gly Pro Pro Pro Pro Pro Gly Arg Gly Gly Arg Gly Gly Ser		
	290	295 300
Arg Ala Arg Asn Leu Pro Leu Pro Pro Pro Pro Pro Pro Arg Gly Gly		
305	310	315 320
Asp Leu Met Ala Tyr Asp Arg Arg Gly Arg Pro Gly Asp Arg Tyr Asp		
	325	330 335
Gly Met Val Gly Phe Ser Ala Asp Glu Thr Trp Asp Ser Ala Ile Asp		
	340	345 350
Thr Trp Ser Pro Ser Glu Trp Gln Met Ala Tyr Glu Pro Gln Gly Gly		
	355	360 365
Ser Gly Tyr Asp Tyr Ser Tyr Ala Gly Gly Arg Gly Ser Tyr Gly Asp		
	370	375 380
Leu Gly Gly Pro Ile Ile Thr Thr Gln Val Thr Ile Pro Lys Asp Leu		
385	390	395 400
Ala Gly Ser Ile Ile Gly Lys Gly Gly Gln Arg Ile Lys Gln Ile Arg		
	405	410 415
His Glu Ser Gly Ala Ser Ile Lys Ile Asp Glu Pro Leu Glu Gly Ser		
	420	425 430
Glu Asp Arg Ile Ile Thr Ile Thr Gly Thr Gln Asp Gln Ile Gln Asn		
	435	440 445
Ala Gln Tyr Leu Leu Gln Asn Ser Val Ser Ser Xaa Xaa Leu Ala Leu		
450	455	460

Cys



1221

465

&lt;210&gt; 1199

&lt;211&gt; 446

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (87)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1199

Tyr	Pro	Ala	Ala	Cys	Xaa	Thr	Gly	Pro	Glu	Phe	Pro	Gly	Arg	Pro	Thr
1				5					10					15	

Arg	Pro	His	Glu	Met	Asp	Gln	Tyr	Trp	Gly	Ile	Gly	Ser	Leu	Ala	Ser
			20					25					30		

Gly	Ile	Asn	Leu	Phe	Thr	Asn	Ser	Phe	Glu	Gly	Pro	Val	Leu	Asp	His
		35					40					45			

Arg	Tyr	Tyr	Ala	Gly	Gly	Cys	Ser	Pro	His	Tyr	Ile	Leu	Asn	Thr	Arg
	50					55					60				

Phe	Arg	Lys	Pro	Tyr	Asn	Val	Glu	Ser	Tyr	Thr	Pro	Gln	Thr	Gln	Gly
65					70					75					80

Lys	Tyr	Glu	Phe	Ile	Leu	Xaa	Xaa	Tyr	Glu	Ser	Tyr	Ser	Asp	Phe	Glu
				85					90					95	

Arg	Asn	Val	Thr	Glu	Lys	Met	Ala	Ser	Lys	Ser	Gly	Phe	Ser	Phe	Gly
		100						105					110		

Phe	Lys	Ile	Pro	Gly	Ile	Phe	Glu	Leu	Gly	Ile	Ser	Ser	Gln	Ser	Asp
	115						120					125			

Arg	Gly	Lys	His	Tyr	Ile	Arg	Arg	Thr	Lys	Arg	Phe	Ser	His	Thr	Lys
	130					135					140				

1222

Ser Val Phe Leu His Ala Arg Ser Asp Leu Glu Val Ala His Tyr Lys  
 145 150 155 160

Leu Lys Pro Arg Ser Leu Met Leu His Tyr Glu Phe Leu Gln Arg Val  
 165 170 175

Lys Arg Leu Pro Leu Glu Tyr Ser Tyr Gly Glu Tyr Arg Asp Leu Phe  
 180 185 190

Arg Asp Phe Gly Thr His Tyr Ile Thr Glu Ala Val Leu Gly Gly Ile  
 195 200 205

Tyr Glu Tyr Thr Leu Val Met Asn Lys Glu Ala Met Glu Arg Gly Asp  
 210 215 220

Tyr Thr Leu Asn Asn Val His Ala Cys Ala Lys Asn Asp Phe Lys Ile  
 225 230 235 240

Gly Gly Ala Ile Glu Glu Val Tyr Val Ser Leu Gly Val Ser Val Gly  
 245 250 255

Lys Cys Arg Gly Ile Leu Asn Glu Ile Lys Asp Arg Asn Lys Arg Asp  
 260 265 270

Thr Met Val Glu Asp Leu Val Val Leu Val Arg Gly Gly Ala Ser Glu  
 275 280 285

His Ile Thr Thr Leu Ala Tyr Gln Glu Leu Pro Thr Ala Asp Leu Met  
 290 295 300

Gln Glu Trp Gly Asp Ala Val Gln Tyr Asn Pro Ala Ile Ile Lys Val  
 305 310 315 320

Lys Val Glu Pro Leu Tyr Glu Leu Val Thr Ala Thr Asp Phe Ala Tyr  
 325 330 335

Ser Ser Thr Val Arg Gln Asn Met Lys Gln Ala Leu Glu Glu Phe Gln  
 340 345 350

Lys Glu Val Ser Ser Cys His Cys Ala Pro Cys Gln Gly Asn Gly Val  
 355 360 365

Pro Val Leu Lys Gly Ser Arg Cys Asp Cys Ile Cys Pro Val Gly Ser  
 370 375 380

Gln Gly Leu Ala Cys Glu Val Ser Tyr Arg Lys Asn Thr Pro Ile Asp  
 385 390 395 400

Gly Lys Trp Asn Cys Trp Ser Asn Trp Ser Ser Cys Ser Gly Arg Arg  
 405 410 415

1223

Lys Thr Arg Gln Arg Gln Cys Asn Asn Pro Pro Pro Gln Asn Gly Gly  
 420 425 430

Ser Pro Cys Ser Gly Pro Ala Ser Glu Thr Leu Asp Cys Ser  
 435 440 445

&lt;210&gt; 1200

&lt;211&gt; 437

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1200

Leu Gly Ser Ser Asp Ser Tyr Ala Ser Pro Gly Arg Ala Ala Ala Pro  
 1 5 10 15

Pro Ala Ala Ala Gly Pro Gly Asp Thr Ser Ala Cys Tyr Lys Ser Ser  
 20 25 30

Gly Pro Arg Cys Leu Leu Pro Asp Leu Ala Pro Ser Ser Glu Pro Gly  
 35 40 45

Ala Cys Leu Gly Gly Leu Ser Val Phe Thr Met Glu Gln Leu Ser Ser  
 50 55 60

Ala Asn Thr Arg Phe Ala Leu Asp Leu Phe Leu Ala Leu Ser Glu Asn  
 65 70 75 80

Asn Pro Ala Gly Asn Ile Phe Ile Ser Pro Phe Ser Ile Ser Ser Ala  
 85 90 95

Met Ala Met Val Phe Leu Gly Thr Arg Gly Asn Thr Ala Ala Gln Leu  
 100 105 110

Ser Lys Thr Phe His Phe Asn Thr Val Glu Glu Val His Ser Arg Phe  
 115 120 125

Gln Ser Leu Asn Ala Asp Ile Asn Lys Arg Gly Ala Ser Tyr Ile Leu  
 130 135 140

Lys Leu Ala Asn Arg Leu Tyr Gly Glu Lys Thr Tyr Asn Phe Leu Pro  
 145 150 155 160

Glu Phe Leu Val Ser Thr Gln Lys Thr Tyr Gly Ala Asp Leu Ala Ser  
 165 170 175

Val Asp Phe Gln His Ala Ser Glu Asp Ala Arg Lys Thr Ile Asn Gln  
 180 185 190

1224

Trp Val Lys Gly Gln Thr Glu Gly Lys Ile Pro Glu Leu Leu Ala Ser  
 195 200 205  
 Gly Met Val Asp Asn Met Thr Lys Leu Val Leu Val Asn Ala Ile Tyr  
 210 215 220  
 Phe Lys Gly Asn Trp Lys Asp Lys Phe Met Lys Glu Ala Thr Thr Asn  
 225 230 235 240  
 Ala Pro Phe Arg Leu Asn Lys Lys Asp Arg Lys Thr Val Lys Met Met  
 245 250 255  
 Tyr Gln Lys Lys Lys Phe Ala Tyr Gly Tyr Ile Glu Asp Leu Lys Cys  
 260 265 270  
 Arg Val Leu Glu Leu Pro Tyr Gln Gly Glu Glu Leu Ser Met Val Ile  
 275 280 285  
 Leu Leu Pro Asp Asp Ile Glu Asp Glu Ser Thr Gly Leu Lys Lys Ile  
 290 295 300  
 Glu Glu Gln Leu Thr Leu Glu Lys Leu His Glu Trp Thr Lys Pro Glu  
 305 310 315 320  
 Asn Leu Asp Phe Ile Glu Val Asn Val Ser Leu Pro Arg Phe Lys Leu  
 325 330 335  
 Glu Glu Ser Tyr Thr Leu Asn Ser Asp Leu Ala Arg Leu Gly Val Gln  
 340 345 350  
 Asp Leu Phe Asn Ser Ser Lys Ala Asp Leu Ser Gly Met Ser Gly Ala  
 355 360 365  
 Arg Asp Ile Phe Ile Ser Lys Ile Val His Lys Ser Phe Val Glu Val  
 370 375 380  
 Asn Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Ala Gly Ile Ala Thr  
 385 390 395 400  
 Phe Cys Met Leu Met Pro Glu Glu Asn Phe Thr Ala Asp His Pro Phe  
 405 410 415  
 Leu Phe Phe Ile Arg His Asn Ser Ser Gly Ser Ile Leu Phe Leu Gly  
 420 425 430  
 Arg Phe Ser Ser Pro  
 435

&lt;210&gt; 1201

1225

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1201

Gln Leu Gly Pro Val Val Gly Gly Trp Tyr Lys Val Leu Asp Arg Phe  
 1 5 10 15

Ile Pro Gly Thr Thr Lys Val Asp Ala Leu Lys Lys Met Leu Leu Asp  
 20 25 30

Gln Gly Gly Phe Ala Pro Cys Phe Leu Gly Cys Phe Leu Pro Leu Val  
 35 40 45

Gly Ala Leu Asn Gly Leu Ser Ala Gln Asp Asn Trp Pro Asn Tyr Ser  
 50 55 60

Gly Ile Ile Leu Met Pro Leu Ser Pro Thr Thr Ile Tyr Gly Leu Leu  
 65 70 75 80

Cys Xaa

&lt;210&gt; 1202

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1202

Ile Ser Arg Ser Ser Ala Arg Arg Gln Pro Phe Arg His Gly Arg Leu  
 1 5 10 15

Trp Arg Ala Ala Ala Met Ala Leu Arg Tyr Pro Met Ala Val Gly Leu  
 20 25 30

Asn Lys Gly His Lys Val Thr Lys Asn Val Ser Lys Pro Arg His Ser  
 35 40 45

Arg Arg Arg Gly Arg Leu Thr Lys His Thr Lys Phe Val Arg Asp Met  
 50 55 60

Ile Arg Glu Val Cys Gly Phe Ala Pro Tyr Glu Arg Arg Ala Met Glu  
 65 70 75 80

1226

Leu Leu Lys Val Ser Lys Asp Lys Arg Ala Leu Lys Phe Ile Lys Lys  
                             85                            90                            95

Arg Val Gly Thr His Ile Arg Ala Lys Arg Lys Arg Glu Glu Leu Ser  
                             100                            105                            110

Asn Val Leu Ala Ala Met Arg Lys Ala Ala Ala Lys Lys Asp  
                             115                            120                            125

<210> 1203

<211> 130

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1203

Asp Trp Asn Pro Asp Leu Gln Ala Ser Ala Val Cys Ile Lys Arg Val  
   1                            5                            10                            15

Gly Glu Ser Gly Pro Leu Ala Gln Glu Pro Xaa Leu Leu Lys Glu Gly  
                             20                            25                            30

Phe Lys Ala Lys Trp Val Cys Gln Arg Cys Cys Leu Pro Phe Leu Glu  
                             35                            40                            45

Met Leu Ile Ser Leu Ser Lys Thr Glu Lys Ser Arg Cys Tyr Arg Asn  
                             50                            55                            60

Asn Leu Val Cys Cys Ile Asn Cys Ser Trp Ala Trp Ser Ser Ile Pro  
   65                            70                            75                            80

Thr Leu Arg Phe Pro Ala Ser Leu Cys Cys Pro Gly Ser His Ser Cys  
                             85                            90                            95

Arg Arg Pro Asn Pro Leu Ala Val Phe Cys Leu Lys Ile Trp Gly Ala  
                             100                            105                            110

Pro Ser Leu Ser Ser Pro Gly Asn Ser Leu Ala Glu Gly Gly Asp Pro  
                             115                            120                            125

Pro Gln

130

1227

<210> 1204  
 <211> 228  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (189)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (196)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (199)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (225)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (228)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1204  
 Trp Ala Ala Phe Glu Pro Ala Thr Leu Ala Trp Lys Phe Pro Phe Gln  
           1                  5                  10                  15  
 Ser Gly Phe Cys Leu Leu Leu Pro Ser Pro Ser Pro Arg Tyr Leu Phe  
                   20                  25                  30  
 Thr Ser His Leu Ile Ser Leu Cys Ser Ser Val Ser Pro Thr His Ile  
           35                  40                  45  
 Ile Gly Asp Ser Gly Gly Ser Leu Thr Ser Leu Leu Ser Asn Ala Arg  
           50                  55                  60  
 Pro Ser Gly Leu Ala Ser Val Ala Ser His Ile Asp Val Thr Leu Glu  
           65                  70                  75                  80  
 Leu Leu Pro Gln Arg Gly Arg Arg Asp Arg Leu Ser Pro His Leu Pro  
                   85                  90                  95  
 Pro Tyr Ser Pro Leu Tyr Ser Arg Phe Asp His Leu Ser Pro Ser Ala  
           100                  105                  110

1228

Ala Pro Ser His Phe Gly Gln Ser Gln Ala Pro Ile Arg Leu Pro Pro  
           115                          120                          125  
 Pro Pro Gly Ala Pro Ser Ile Ser Leu Ser Pro Leu Pro Gln Asn Leu  
           130                          135                          140  
 Cys Lys Gly Tyr Glu Arg Asp Pro Leu Pro Ser Arg Pro Pro Leu Arg  
   145                          150                          155                          160  
 Ala Val Arg Ser Lys Lys Gln Lys Leu Val Gly Gly Trp Leu Gly Leu  
                           165                          170                          175  
 Cys Pro Val Pro Arg Trp Asp Lys Leu Ala Phe Ser Xaa Ile Pro Ser  
                           180                          185                          190  
 Trp Val Pro Xaa Ser Phe Xaa Ala Pro Gly Ala Arg Thr His Cys Ala  
           195                          200                          205  
 Val Phe Leu Phe Ser Phe Val Gly Lys Gly Thr Lys Val Phe Ala Lys  
           210                          215                          220  
 Xaa Pro Val Xaa  
   225

&lt;210&gt; 1205

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1205

Leu Pro Gly Ala Val Ala Ala Ser Ser Gly Ser Pro Pro Gly Ser Ala  
   1                          5                          10                          15  
 Leu Ala Ala Val Ala Ser Gly Gly Asp Leu Phe Pro Gly Gln Pro Val  
           20                          25                          30  
 Ser Glu Leu Ile Ala Gln Leu Leu Arg Ala Glu Pro Tyr Pro Ala Ala  
           35                          40                          45  
 Ala Gly Arg Phe Gly Ala Gly Gly Gly Ala Ala Gly Ala Val Leu Gly  
           50                          55                          60  
 Ile Asp Asn Val Cys Glu Leu Ala Ala Arg Leu Leu Phe Ser Thr Val



1229

65	70	75	80
Glu Trp Ala Arg His Ala Pro Phe Phe Pro Glu Leu Pro Val Ala Asp			
	85	90	95
Gln Val Ala Leu Leu Arg Leu Ser Trp Ser Glu Leu Phe Val Leu Asn			
	100	105	110
Ala Ala Gln Ala Ala Leu Pro Leu His Thr Ala Pro Leu Leu Ala Xaa			
	115	120	125
Ala Gly Leu His Ala Ala Pro Met Ala Ala Glu Arg Ala Val Ala Phe			
	130	135	140
Met Asp Gln Val Arg Ala Phe Gln Glu Gln Val Asp Lys Leu Gly Arg			
	145	150	155
Leu Gln Val Asp Ser Ala Glu Tyr Gly Cys Leu Lys Ala Ile Ala Leu			
	165	170	175
Phe Thr Pro Asp Ala Cys Gly Leu Ser Asp Pro Ala His Val Glu Ser			
	180	185	190
Leu Gln Glu Lys Ala Gln Val Ala Leu Thr Glu Tyr Val Arg Ala Gln			
	195	200	205
Tyr Pro Ser Gln Pro Gln Arg Phe Gly Arg Leu Leu Leu Arg Leu Pro			
	210	215	220
Ala Leu Arg Ala Val Pro Ala Ser Leu Ile Ser Gln Leu Phe Phe Met			
	225	230	235
Arg Leu Val Gly Lys Thr Pro Ile Glu Thr Leu Ile Arg Asp Met Leu			
	245	250	255
Leu Ser Gly Ser Thr Phe Asn Trp Pro Tyr Gly Ser Gly Gln			
	260	265	270

&lt;210&gt; 1206

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1206

Met Phe His Cys Ser Asp Lys Tyr Phe Thr Phe Phe Ser Val His Gln
1 5 10 15

Arg Glu Arg Asp Pro Pro Thr Ala Val Thr Ser Lys Cys Ser Cys Ser
20 25 30

1230

Ile Asn Gly Val Thr Asp Thr Glu Val His Ser Trp Phe Leu Ser Arg  
                   35                                  40                                  45

Val Val Ile Leu Val Ser Trp Ser Leu Gly His Trp Gly Cys Thr Leu  
           50                                  55                                  60

Lys Ser Pro Asn Arg Leu Ala Ile Lys Ile Asn Lys Ala Ala Ala Pro  
       65                                  70                                  75                                  80

Phe Gln Phe Thr Phe His Leu Thr Gln  
                                   85

&lt;210&gt; 1207

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1207

Cys Val Gly Lys Ala Gly Val Glu Leu Gly Cys Ser Gly Glu Gly Val  
       1                                  5                                  10                                  15

Val Lys Lys Ala Ser Ser Arg Gly His Lys Ala Arg Phe Pro Leu Arg  
           20                                  25                                  30

Ser His Lys Val Leu Ser Pro Ala Pro Gly Ala Gly Gly Val His Gly  
           35                                  40                                  45

Pro Gly Phe Thr Ser Thr His Pro Ala His Pro Arg Gly Glu Gly Pro  
       50                                  55                                  60

Arg Ala Pro Gly Pro Ala Ala Asp Arg Ile Leu Cys Lys Leu Cys Ser  
       65                                  70                                  75                                  80

Val His Cys Lys Thr Pro Ala Gln Leu Ala Gly His Met Gln Thr His  
                                   85                                  90                                  95

Leu Gly Gly Ala Ala Pro Leu Ser Arg Glu Thr Pro Pro Ser His Ser  
           100                                  105                                  110

Pro Pro Ala Glu Gly Asp Pro Arg Thr His Gln Val Leu Val Arg Phe  
           115                                  120                                  125

Val Gln Trp Arg Arg Gln Arg Gln Xaa Arg Gln Arg Gln Gln Arg Gln

1231

130                      135                      140  
 Gln  
 145  
  
 <210> 1208  
 <211> 378  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 1208  
 Ser Ala Ser Arg Ala Thr Ala Met Ser Ser Arg Gly Gly Lys Lys Lys  
   1                      5                      10                      15  
  
 Ser Thr Lys Thr Ser Arg Ser Ala Lys Ala Gly Val Ile Phe Pro Val  
                     20                      25                      30  
  
 Gly Arg Met Leu Arg Tyr Ile Lys Lys Gly His Pro Lys Tyr Arg Ile  
                     35                      40                      45  
  
 Gly Val Gly Ala Pro Val Tyr Met Ala Ala Val Leu Glu Tyr Leu Thr  
   50                      55                      60  
  
 Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys  
   65                      70                      75                      80  
  
 Gly Arg Val Thr Pro Arg His Ile Leu Leu Ala Val Ala Asn Asp Glu  
                     85                      90                      95  
  
 Glu Leu Asn Gln Leu Leu Lys Gly Val Thr Ile Ala Ser Gly Gly Val  
                     100                      105                      110  
  
 Leu Pro Asn Ile His Pro Glu Leu Leu Ala Lys Lys Arg Gly Ser Lys  
                     115                      120                      125  
  
 Gly Lys Leu Glu Ala Ile Ile Thr Pro Pro Pro Ala Lys Lys Ala Lys  
   130                      135                      140  
  
 Ser Pro Ser Gln Lys Lys Pro Val Ser Lys Lys Ala Gly Gly Lys Lys  
   145                      150                      155                      160  
  
 Gly Ala Arg Lys Ser Lys Lys Gln Gly Glu Val Ser Lys Ala Ala Ser  
                     165                      170                      175  
  
 Ala Asp Ser Thr Thr Glu Gly Thr Pro Ala Asp Gly Phe Thr Val Leu  
                     180                      185                      190  
  
 Ser Thr Lys Ser Leu Phe Leu Gly Gln Lys Leu Asn Leu Ile His Ser  
                     195                      200                      205

1232

Glu Ile Ser Asn Leu Ala Gly Phe Glu Val Glu Ala Ile Ile Asn Pro  
 210 215 220

Thr Asn Ala Asp Ile Asp Leu Lys Asp Asp Leu Gly Asn Thr Leu Glu  
 225 230 235 240

Lys Lys Gly Gly Lys Glu Phe Val Glu Ala Val Leu Glu Leu Arg Lys  
 245 250 255

Lys Asn Gly Pro Leu Glu Val Ala Gly Ala Ala Val Ser Ala Gly His  
 260 265 270

Gly Leu Pro Ala Lys Phe Val Ile His Cys Asn Ser Pro Val Trp Gly  
 275 280 285

Ala Asp Lys Cys Glu Glu Leu Leu Glu Lys Thr Val Lys Asn Cys Leu  
 290 295 300

Ala Leu Ala Asp Asp Lys Lys Leu Lys Ser Ile Ala Phe Pro Ser Ile  
 305 310 315 320

Gly Ser Gly Arg Asn Gly Phe Pro Lys Gln Thr Ala Ala Gln Leu Ile  
 325 330 335

Leu Lys Ala Ile Ser Ser Tyr Phe Val Ser Thr Met Ser Ser Ser Ile  
 340 345 350

Lys Thr Val Tyr Phe Val Leu Phe Asp Ser Glu Ser Ile Gly Ile Tyr  
 355 360 365

Val Gln Glu Met Ala Lys Leu Asp Ala Asn  
 370 375

<210> 1209

<211> 220

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

1233

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1209

Arg Gly Gly Lys Ile Xaa Asp Thr Phe Xaa Arg Tyr Ala Arg Arg Tyr  
 1 5 10 15

Arg Ser Gly Ile Pro Gly Ser Thr His Ala Xaa Ala Pro Gly Ala Met  
 20 25 30

Arg Leu Ser Leu Pro Leu Leu Leu Leu Leu Gly Ala Trp Ala Ile  
 35 40 45

Pro Gly Gly Leu Gly Asp Arg Ala Pro Leu Thr Ala Thr Ala Pro Gln  
 50 55 60

Leu Asp Asp Glu Glu Met Tyr Ser Ala His Met Pro Ala His Leu Arg  
 65 70 75 80

Cys Asp Ala Cys Arg Ala Val Ala Tyr Gln Met Trp Gln Asn Leu Ala  
 85 90 95

Lys Ala Glu Thr Lys Leu His Thr Ser Asn Ser Gly Gly Arg Arg Glu  
 100 105 110

Leu Ser Glu Leu Val Tyr Thr Asp Val Leu Asp Arg Ser Cys Ser Arg  
 115 120 125

Asn Trp Gln Asp Tyr Gly Val Arg Glu Val Asp Gln Val Lys Arg Leu  
 130 135 140

Thr Gly Pro Gly Leu Ser Glu Gly Pro Glu Pro Ser Ile Ser Val Met  
 145 150 155 160

Val Thr Gly Gly Pro Trp Pro Thr Arg Leu Ser Arg Thr Cys Leu His  
 165 170 175

Tyr Leu Gly Glu Phe Gly Glu Asp Gln Ile Tyr Glu Ala His Gln Gln  
 180 185 190

Gly Arg Gly Ala Leu Glu Ala Leu Leu Cys Gly Gly Pro Gln Gly Ala  
 195 200 205

Cys Ser Glu Lys Val Ser Ala Thr Arg Glu Glu Leu  
 210 215 220

&lt;210&gt; 1210

1234

&lt;211&gt; 231

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1210

Ala	Leu	Ser	Pro	Ala	Met	Val	Val	Pro	Glu	Asp	Gln	Leu	Thr	Arg	Trp	1	5	10	15
His	Pro	Arg	Phe	Asn	Val	Asp	Glu	Val	Pro	Asp	Ile	Glu	Pro	Ala	Ala	20	25	30	
Leu	Pro	Gln	Pro	Pro	Ala	Thr	Glu	Lys	Leu	Thr	Thr	Ala	Gln	Glu	Val	35	40	45	
Leu	Ala	Arg	Ala	Arg	Asn	Leu	Ile	Ser	Pro	Arg	Met	Glu	Lys	Ala	Leu	50	55	60	
Ser	Gln	Leu	Ala	Leu	Arg	Ser	Ala	Ala	Pro	Ser	Ser	Pro	Gly	Ser	Pro	65	70	75	80
Arg	Pro	Ala	Leu	Pro	Ala	Thr	Pro	Pro	Ala	Thr	Pro	Pro	Ala	Ala	Ser	85	90	95	
Pro	Ser	Ala	Leu	Lys	Gly	Val	Ser	Gln	Asp	Leu	Leu	Glu	Arg	Ile	Arg	100	105	110	
Ala	Lys	Glu	Ala	Gln	Lys	Gln	Leu	Ala	Gln	Met	Thr	Arg	Cys	Pro	Glu	115	120	125	
Gln	Glu	Gln	Arg	Leu	Gln	Arg	Leu	Glu	Arg	Leu	Pro	Glu	Leu	Ala	Arg	130	135	140	
Val	Leu	Arg	Ser	Val	Phe	Val	Ser	Glu	Arg	Lys	Pro	Ala	Leu	Ser	Met	145	150	155	160
Glu	Val	Ala	Cys	Ala	Arg	Met	Val	Gly	Ser	Cys	Cys	Thr	Ile	Met	Ser	165	170	175	
Pro	Gly	Glu	Met	Glu	Lys	His	Leu	Leu	Leu	Leu	Ser	Glu	Leu	Leu	Pro	180	185	190	
Asp	Trp	Leu	Ser	Leu	His	Arg	Ile	Arg	Thr	Asp	Thr	Tyr	Val	Lys	Leu	195	200	205	
Asp	Lys	Ala	Ala	Asp	Leu	Ala	His	Ile	Thr	Ala	Arg	Leu	Ala	His	Gln	210	215	220	
Thr	Arg	Ala	Glu	Glu	Gly	Leu	225	230											

1235

&lt;210&gt; 1211

&lt;211&gt; 346

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1211

Asn Cys Thr Thr Ile Ser Leu Val Tyr Leu His Phe Val Phe Tyr Asn  
 1 5 10 15

Ser Tyr Ser Leu Phe Pro Ser Lys Glu Asn Cys Val Tyr Glu Thr Val  
 20 25 30

Val Leu Pro Leu Asp Glu Arg Ala Phe Glu Lys Thr Leu Thr Pro Ile  
 35 40 45

Ile Gln Glu Tyr Phe Glu His Gly Asp Thr Asn Glu Val Ala Glu Met  
 50 55 60

Leu Arg Asp Leu Asn Leu Gly Glu Met Lys Ser Gly Val Pro Val Leu  
 65 70 75 80

Ala Val Ser Leu Ala Leu Glu Gly Lys Ala Ser His Arg Glu Met Thr  
 85 90 95

Ser Lys Leu Leu Ser Asp Leu Cys Gly Thr Val Met Ser Thr Thr Asp  
 100 105 110

Val Glu Lys Ser Phe Asp Lys Leu Leu Lys Asp Leu Pro Glu Leu Ala  
 115 120 125

Leu Asp Thr Pro Arg Ala Pro Gln Leu Val Gly Gln Phe Ile Ala Arg  
 130 135 140

Ala Val Gly Asp Gly Ile Leu Cys Asn Thr Tyr Ile Asp Ser Tyr Lys  
 145 150 155 160

Gly Thr Val Asp Cys Val Gln Ala Arg Ala Ala Leu Asp Lys Ala Thr  
 165 170 175

Val Leu Leu Ser Met Ser Lys Gly Gly Lys Arg Lys Asp Ser Val Trp  
 180 185 190

Gly Ser Gly Gly Gly Gln Gln Ser Val Asn His Leu Val Lys Glu Ile  
 195 200 205

Asp Met Leu Leu Lys Glu Tyr Leu Leu Ser Gly Asp Ile Ser Glu Ala  
 210 215 220

Glu His Cys Leu Lys Glu Leu Glu Val Pro His Phe His His Glu Leu  
 225 230 235 240

1236

Val Tyr Glu Ala Ile Ile Met Val Leu Glu Ser Thr Gly Glu Ser Thr  
                   245                  250                  255

Phe Lys Met Ile Leu Asp Leu Leu Lys Ser Leu Trp Lys Ser Ser Thr  
                   260                  265                  270

Ile Thr Val Asp Gln Met Lys Arg Gly Tyr Glu Arg Ile Tyr Asn Glu  
                   275                  280                  285

Ile Pro Asp Ile Asn Leu Asp Val Pro His Ser Tyr Ser Val Leu Glu  
                   290                  295                  300

Arg Phe Val Glu Glu Cys Phe Gln Ala Gly Ile Ile Ser Lys Gln Leu  
                   305                  310                  315                  320

Arg Asp Leu Cys Pro Ser Arg Gly Arg Lys Arg Phe Val Ser Glu Gly  
                   325                  330                  335

Asp Gly Gly Arg Leu Lys Pro Glu Ser Tyr  
                   340                  345

&lt;210&gt; 1212

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1212

Pro Arg Xaa Ile Val Ser Ala Ala Cys Gly Arg Asn His Thr Leu Ala  
           1                  5                  10                  15

Leu Thr Glu Thr Gly Ser Val Phe Ala Phe Gly Glu Asn Lys Met Gly  
                   20                  25                  30

Gln Leu Gly Leu Gly Asn Gln Thr Asp Ala Val Pro Ser Pro Ala Gln  
                   35                  40                  45

Ile Met Tyr Asn Gly Gln Pro Ile Thr Lys Met Ala Cys Gly Xaa Glu  
                   50                  55                  60



1237

Phe Ser Met Ile Met Asp Cys Lys Gly Asn Leu Tyr Ser Phe Gly Cys  
65 70 75 80

Pro Glu Tyr Gly Gln Leu Gly His Asn Ser Asp Gly Lys Phe Ile Ala  
85 90 95

Arg Ala Gln Arg Ile Glu Tyr Asp Cys Glu Leu Val Pro Arg Arg Val  
100 105 110

Ala Ile Phe Ile Glu Lys Thr Lys Asp Gly Gln Ile Leu Pro Val Pro  
115 120 125

Asn Val Val Val Arg Asp Val Ala Cys Gly Ala Asn His Thr Leu Val  
130 135 140

Leu Asp Ser Gln Lys Arg Val Phe Ser Trp Gly Phe Gly Gly Tyr Gly  
145 150 155 160

Arg Leu Gly Thr Gln Ser Arg Arg Met Arg Trp Ser Pro Ala Trp  
165 170 175

<210> 1213

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1213

Cys Phe Ile Cys Val Trp Cys Lys Arg Lys Leu Asp Gln Ile Asn Leu  
1 5 10 15

Gln Leu Met Ser Pro Asn Ala Asn Thr Gly Thr His Met His Thr Pro  
20 25 30

Ile Asn Thr His Thr Val His Leu Xaa Lys Gly Gln Val Ile Ser His  
35 40 45

Pro Asn Phe Thr Ser Thr Asp Pro Leu Ala Pro Thr Pro Ala Ser Thr  
50 55 60

Val Thr Ser Lys Ala Arg Ala Thr Cys Ala His Gln Thr Cys Ile Lys  
65 70 75 80

Gln Leu Ala Gly Asp Gly Cys Gly Ala Gly Gly Leu Ser Asp Gly Ser

1238

85 90 95  
Leu Leu Leu Pro Leu Leu Arg Val Lys Leu Leu Ser Phe Leu Arg Val  
100 105 110  
Tyr Leu Cys Gln Val Cys Ala Phe Asn Cys Phe Tyr Phe Val Phe  
115 120 125

<210> 1214  
<211> 146  
<212> PRT  
<213> Homo sapiens

<400> 1214  
Cys Thr Trp Asn Arg Cys Ser Ala Ser Pro Ala Gly Trp Gln Asn Ser  
1 5 10 15  
Phe Leu Gly His Leu Asn Pro Ser Ser Leu Leu Gln Asn Pro Pro Ala  
20 25 30  
Asn Arg Ile Gly Met Gly Ala Thr Leu Asp Ile Gln Arg Gln Gln Arg  
35 40 45  
Met Glu Leu Leu Asp Arg Gln Leu Met Phe Ser Gln Phe Ala Gln Gly  
50 55 60  
Arg Arg Gln Arg Gln Gln Gln Gly Gly Met Ile Asn Trp Asn Arg Leu  
65 70 75 80  
Phe Pro Pro Leu Arg Gln Arg Gln Asn Val Asn Tyr Gln Gly Gly Arg  
85 90 95  
Gln Ser Glu Pro Ala Ala Pro Pro Leu Glu Val Ser Glu Glu Gln Val  
100 105 110  
Ala Arg Leu Met Glu Met Gly Phe Ser Arg Gly Asp Ala Leu Glu Ala  
115 120 125  
Leu Arg Ala Ser Asn Asn Asp Leu Asn Val Ala Thr Asn Phe Leu Leu  
130 135 140  
Gln His  
145

<210> 1215  
<211> 116  
<212> PRT

1239

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1215

Leu	Lys	Asn	His	Gln	Lys	Thr	His	Thr	Ser	Glu	Lys	Ser	Tyr	Lys	Cys
1				5					10					15	

Asn	Glu	Cys	Arg	Lys	Ala	Phe	Ser	Tyr	Cys	Ser	Gly	Leu	Ile	Gln	Cys
			20					25					30		

Gln	Val	Ile	His	Thr	Ile	Glu	Lys	Pro	Tyr	Glu	Tyr	Gly	Lys	Cys	Gly
		35					40					45			

Lys	Ala	Phe	Arg	Gln	Arg	Thr	Asp	Leu	Lys	Lys	His	Gln	Lys	Met	His
	50					55					60				

Thr	Glu	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Ser
65					70					75					80

Gln	Ser	Thr	Tyr	Leu	Thr	Lys	His	Gln	Lys	Ile	His	Ser	Glu	Glu	Lys
				85					90					95	

Ser	Asn	Ile	His	Thr	Glu	Cys	Gly	Glu	Thr	Xaa	Xaa	Gln	Asn	Ser	Ser
			100					105					110		

Phe	Leu	Gln	Gln
			115

&lt;210&gt; 1216

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1216

Ala	Ala	Gly	Gly	Glu	Gly	Phe	Gly	Ser	Leu	His	Ala	Ser	Leu	Val	Gly
1					5				10				15		

Phe	Arg	Gly	Val	Val	Ala	Gly	Cys	Ala	Arg	His	Phe	Arg	Ala	Ser	Arg
			20					25					30		

1240

Asn Gly Val Ala Asn Gly Leu Gln Ser Asn Met Pro Lys Phe Tyr Cys  
           35                          40                          45  
 Asp Tyr Cys Asp Thr Tyr Leu Thr His Asp Ser Pro Ser Val Arg Lys  
           50                          55                          60  
 Thr His Cys Ser Gly Arg Lys His Lys Glu Asn Val Lys Asp Tyr Tyr  
           65                          70                          75                          80  
 Gln Lys Trp Met Glu Glu Gln Ala Gln Ser Leu Ile Asp Lys Thr Thr  
                           85                          90                          95  
 Ala Ala Phe Gln Gln Gly Lys Ile Pro Pro Thr Pro Phe Ser Ala Pro  
                           100                          105                          110  
 Pro Pro Ala Gly Ala Met Ile Pro Pro Pro Pro Ser Leu Pro Gly Pro  
                           115                          120                          125  
 Pro Arg Pro Gly Met Met Pro Ala Pro His Met Gly Gly Pro Pro Met  
           130                          135                          140  
 Met Pro Met Met Gly Pro Pro Pro Pro Gly Met Met Pro Val Gly Pro  
           145                          150                          155                          160  
 Ala Pro Gly Met Arg Pro Pro Met Gly Gly His Met Pro Met Met Pro  
                           165                          170                          175  
 Gly Pro Pro Met Met Arg Pro Pro Ala Arg Pro Met Met Val Pro Thr  
                           180                          185                          190  
 Arg Pro Gly Met Thr Arg Pro Asp Arg  
           195                          200

&lt;210&gt; 1217

&lt;211&gt; 473

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1217

Lys Phe Thr Met Lys Phe Leu Leu Ile Leu Leu Leu Gln Ala Thr Ala  
   1                          5                          10                          15  
 Ser Gly Ala Leu Pro Leu Asn Ser Ser Thr Ser Leu Glu Lys Asn Asn  
           20                          25                          30  
 Val Leu Phe Gly Glu Arg Tyr Leu Glu Lys Phe Tyr Gly Leu Glu Ile  
           35                          40                          45  
 Asn Lys Leu Pro Val Thr Lys Met Lys Tyr Ser Gly Asn Leu Met Lys

1241

50	55	60
Glu Lys Ile Gln Glu Met Gln His Phe Leu Gly Leu Lys Val Thr Gly		
65	70	75 80
Gln Leu Asp Thr Ser Thr Leu Glu Met Met His Ala Pro Arg Cys Gly		
	85	90 95
Val Pro Asp Val His His Phe Arg Glu Met Pro Gly Gly Pro Val Trp		
	100	105 110
Arg Lys His Tyr Ile Thr Tyr Arg Ile Asn Asn Tyr Thr Pro Asp Met		
	115	120 125
Asn Arg Glu Asp Val Asp Tyr Ala Ile Arg Lys Ala Phe Gln Val Trp		
	130	135 140
Ser Asn Val Thr Pro Leu Lys Phe Ser Lys Ile Asn Thr Gly Met Ala		
145	150	155 160
Asp Ile Leu Val Val Phe Ala Arg Gly Ala His Gly Asp Phe His Ala		
	165	170 175
Phe Asp Gly Lys Gly Gly Ile Leu Ala His Ala Phe Gly Pro Gly Ser		
	180	185 190
Gly Ile Gly Gly Asp Ala His Phe Asp Glu Asp Glu Phe Trp Thr Thr		
	195	200 205
His Ser Gly Gly Thr Asn Leu Phe Leu Thr Ala Val His Glu Ile Gly		
	210	215 220
His Ser Leu Gly Leu Gly His Ser Ser Asp Pro Lys Ala Val Met Phe		
225	230	235 240
Pro Thr Tyr Lys Tyr Val Asp Ile Asn Thr Phe Arg Leu Ser Ala Asp		
	245	250 255
Asp Ile Arg Gly Ile Gln Ser Leu Tyr Gly Asp Pro Lys Glu Asn Gln		
	260	265 270
Arg Leu Pro Asn Pro Asp Asn Ser Glu Pro Ala Leu Cys Asp Pro Asn		
	275	280 285
Leu Ser Phe Asp Ala Val Thr Thr Val Gly Asn Lys Ile Phe Phe Phe		
	290	295 300
Lys Asp Arg Phe Phe Trp Leu Lys Val Ser Glu Arg Pro Lys Thr Ser		
305	310	315 320
Val Asn Leu Ile Ser Ser Leu Trp Pro Thr Leu Pro Ser Gly Ile Glu		

1242

	325		330		335
Ala Ala Tyr Glu Ile Glu Ala Arg Asn Gln Val Phe Leu Phe Lys Asp					
340		345		350	
Asp Lys Tyr Trp Leu Ile Ser Asn Leu Arg Pro Glu Pro Asn Tyr Pro					
355		360		365	
Lys Ser Ile His Ser Phe Gly Phe Pro Asn Phe Val Lys Lys Ile Asp					
370		375		380	
Ala Ala Val Phe Asn Pro Arg Phe Tyr Arg Thr Tyr Phe Phe Val Asp					
385		390		395	400
Asn Gln Tyr Trp Arg Tyr Asp Glu Arg Arg Gln Met Met Asp Pro Gly					
	405		410		415
Tyr Pro Lys Leu Ile Thr Lys Asn Phe Gln Gly Ile Gly Pro Lys Ile					
	420		425		430
Asp Ala Val Phe Tyr Ser Lys Asn Lys Tyr Tyr Tyr Phe Phe Gln Gly					
	435		440		445
Ser Asn Gln Phe Glu Tyr Asp Phe Leu Leu Gln Arg Ile Thr Lys Thr					
	450		455		460
Leu Lys Ser Asn Ser Trp Phe Gly Cys					
465		470			

&lt;210&gt; 1218

&lt;211&gt; 598

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1218

Ala Thr Ser Arg Gln Pro Ser Tyr Xaa Arg Thr Trp Cys Arg Arg Cys
1 5 10 15

Cys Leu Pro Leu Ala Leu Asn Pro Val Pro Ala Ala Met Ala Pro Gly

1243

	20		25		30
Gln Leu Ala Leu Phe Ser Val Ser Asp Lys Thr Gly Leu Val Glu Phe	35	40	45		
Ala Arg Asn Leu Thr Ala Leu Gly Leu Asn Leu Val Ala Ser Gly Gly	50	55	60		
Thr Ala Lys Ala Leu Arg Asp Ala Gly Leu Ala Val Arg Asp Val Ser	65	70	75	80	
Glu Leu Thr Gly Phe Pro Glu Met Leu Gly Gly Arg Val Lys Thr Leu	85	90	95		
His Pro Ala Val His Ala Gly Ile Leu Ala Arg Asn Ile Pro Glu Asp	100	105	110		
Asn Ala Asp Met Ala Arg Leu Asp Phe Asn Leu Ile Arg Val Val Ala	115	120	125		
Cys Asn Leu Tyr Pro Phe Val Lys Thr Val Ala Ser Pro Gly Val Xaa	130	135	140		
Val Glu Glu Ala Val Glu Gln Ile Asp Ile Gly Gly Val Thr Leu Leu	145	150	155	160	
Arg Ala Ala Ala Lys Asn His Ala Arg Val Thr Val Val Cys Glu Pro	165	170	175		
Glu Asp Tyr Val Val Val Ser Thr Glu Met Gln Ser Ser Glu Ser Lys	180	185	190		
Asp Thr Ser Leu Glu Thr Arg Arg Gln Leu Ala Leu Lys Ala Phe Thr	195	200	205		
His Thr Ala Gln Tyr Asp Glu Ala Ile Ser Asp Tyr Phe Arg Lys Gln	210	215	220		
Tyr Ser Lys Gly Val Ser Gln Met Pro Leu Arg Tyr Gly Met Asn Pro	225	230	235	240	
His Gln Thr Pro Ala Gln Leu Tyr Thr Leu Gln Pro Lys Leu Pro Ile	245	250	255		
Thr Val Leu Asn Gly Ala Pro Gly Phe Ile Asn Leu Cys Asp Ala Leu	260	265	270		
Asn Ala Trp Gln Leu Val Lys Glu Leu Lys Glu Ala Leu Gly Ile Pro	275	280	285		
Ala Ala Ala Ser Phe Lys His Val Ser Pro Ala Gly Ala Ala Val Gly					

1244

290	295	300
Ile Pro Leu Ser Glu Asp Glu Ala Lys Val Cys Met Val Tyr Asp Leu 305	310	315 320
Tyr Lys Thr Leu Thr Pro Ile Ser Ala Ala Tyr Ala Arg Ala Arg Gly 325	330	335
Ala Asp Arg Met Ser Ser Phe Gly Asp Phe Val Ala Leu Ser Asp Val 340	345	350
Cys Asp Val Pro Thr Ala Lys Ile Ile Ser Arg Glu Val Ser Asp Gly 355	360	365
Ile Ile Ala Pro Gly Tyr Glu Glu Glu Ala Leu Thr Ile Leu Ser Lys 370	375	380
Lys Lys Asn Gly Asn Tyr Cys Val Leu Gln Met Asp Gln Ser Tyr Lys 385	390	395 400
Pro Asp Glu Asn Glu Val Arg Thr Leu Phe Gly Leu His Leu Ser Gln 405	410	415
Lys Arg Asn Asn Gly Val Val Asp Lys Ser Leu Phe Ser Asn Val Val 420	425	430
Thr Lys Asn Lys Asp Leu Pro Glu Ser Ala Leu Arg Asp Leu Ile Val 435	440	445
Ala Thr Ile Ala Val Lys Tyr Thr Gln Ser Asn Ser Val Cys Tyr Ala 450	455	460
Lys Asn Gly Gln Val Ile Gly Ile Gly Ala Gly Gln Gln Ser Arg Ile 465	470	475 480
His Cys Thr Arg Leu Ala Gly Asp Lys Ala Asn Tyr Trp Trp Leu Arg 485	490	495
His His Pro Gln Val Leu Ser Met Lys Phe Lys Thr Gly Val Lys Arg 500	505	510
Ala Glu Ile Ser Asn Ala Ile Asp Gln Tyr Val Thr Gly Thr Ile Gly 515	520	525
Glu Asp Glu Asp Leu Ile Lys Trp Lys Ala Leu Phe Glu Glu Val Pro 530	535	540
Glu Leu Leu Thr Glu Ala Glu Lys Lys Glu Trp Val Glu Lys Leu Thr 545	550	555 560
Glu Val Ser Ile Ser Ser Asp Ala Phe Phe Pro Phe Arg Asp Asn Val		



1245

565                      570                      575  
 Asp Arg Ala Lys Arg Ser Gly Val Ala Tyr Ile Ala Ala Pro Pro Val  
                     580                      585                      590  
 Leu Leu Leu Thr Lys Leu  
                     595

<210> 1219  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 1219  
 Tyr Thr Ala Ile Met Ser Ile Met Ser Tyr Asn Gly Gly Ala Val Met  
     1                      5                      10                      15  
 Ala Met Lys Gly Lys Asn Cys Val Ala Ile Ala Ala Asp Arg Arg Phe  
                     20                      25                      30  
 Gly Ile Gln Ala Gln Met Val Thr Thr Asp Phe Gln Lys Ile Phe Pro  
                     35                      40                      45  
 Met Gly Asp Arg Leu Tyr Ile Gly Leu Ala Gly Leu Ala Thr Asp Val  
                     50                      55                      60  
 Gln Thr Val Ala Gln Arg Leu Lys Phe Arg Leu Asn Leu Tyr Glu Leu  
                     65                      70                      75                      80  
 Lys Glu Gly Arg Gln Ile Lys Pro Tyr Thr Leu Met Ser Met Val Ala  
                     85                      90                      95  
 Asn Leu Leu Tyr Glu Lys Arg Phe Gly Pro Tyr Tyr Thr Glu Pro Val  
                     100                      105                      110  
 Ile Ala Gly Leu Asp Pro Lys Thr Phe Lys Pro Phe Ile Cys Ser Leu  
                     115                      120                      125  
 Asp Leu Ile Gly Cys Pro Met Val Thr Asp Asp Phe Val Val Ser Gly  
                     130                      135                      140  
 Thr Cys Ala Glu Gln Met Tyr Gly Met Cys Glu Ser Leu Trp Glu Pro  
                     145                      150                      155                      160  
 Asn Met Asp Pro Asp His Leu Phe Glu Thr Ile Ser Gln Ala Met Leu  
                     165                      170                      175  
 Asn Ala Val Asp Arg Asp Ala Val Ser Gly Met Gly Val Ile Val His  
                     180                      185                      190

1246

Ile Ile Glu Lys Asp Lys Ile Thr Thr Arg Thr Leu Lys Ala Arg Met  
 195 200 205

Asp

&lt;210&gt; 1220

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1220

Ile Ile Ser Ile Ile Ser Thr Ser Asn Lys Ile Lys Met Ser Glu Ala  
 1 5 10 15

Pro Arg Phe Phe Val Gly Pro Glu Asp Thr Glu Ile Asn Pro Gly Asn  
 20 25 30

Tyr Arg His Phe Phe His His Ala Asp Glu Asp Asp Glu Glu Glu Asp  
 35 40 45

Asp Ser Xaa Pro Glu Arg Gln Ile Val Val Gly Ile Cys Ser Met Xaa  
 50 55 60

Lys Lys Ser Lys Ser Lys Pro Met Lys Glu Ile Leu Xaa Arg Ile Ser  
 65 70 75 80

Leu Phe Lys Tyr Ile Thr Val Val Val Phe Glu Glu Glu Val Ile Leu  
 85 90 95

Asn Glu Pro Val Glu Asn Trp Pro Leu Cys Asp Cys Leu Ile Ser Phe  
 100 105 110

1247

His Ser Lys Gly Phe Pro Leu Asp Lys Ala Val Ala Tyr Ala Lys Leu  
115 120 125

Arg Asn Pro Phe Val Ile Asn Asp Leu Asn Met Gln  
130 135 140

&lt;210&gt; 1221

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1221

Gly Leu Met Glu Ile Glu Ile Thr Cys Lys Asp Ile Thr Val Phe Met  
1 5 10 15

Ser Tyr Ile Leu Val Leu Glu Ile Val Glu Cys Met Ile Asp Asn Ile  
20 25 30

Phe Leu Ile Phe Ile Phe Ser Ser Asn Thr Ser Thr Val  
35 40 45

&lt;210&gt; 1222

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1222

Val Ala Tyr Ile Cys Tyr Ser Lys Phe Cys Lys Tyr Ala Asn Gln Leu  
1 5 10 15

Tyr Arg Phe Ile Thr Ser Phe Leu Gly Phe Phe Trp Gly Arg Val Ile  
20 25 30

Ile Leu Leu Lys Ile Thr Met Asn Thr Leu Thr Val Arg Ile Cys Gly  
35 40 45

Lys Val Pro Leu Asn Ile Thr Lys Ile Ile Ser Leu Glu Gly Arg Asn  
50 55 60

Asn His Ser Asn Glu Leu  
65 70

&lt;210&gt; 1223

&lt;211&gt; 88

&lt;212&gt; PRT

1248

&lt;213&gt; Homo sapiens

&lt;400&gt; 1223

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Phe Tyr Pro Ser Thr Tyr Leu Lys Ala Pro Ser Ser Leu Val Cys Gly
 1             5             10             15

Val Leu Glu Pro Val Ser Ser Phe Trp Arg Phe Lys Leu Asn Ser Asn
      20             25             30

Asn Tyr Val Thr Gln Ser Met Trp Arg Lys Ser Glu Thr Ser His Gly
      35             40             45

Asp Ala Gly Pro Arg Ala Arg Pro Ala Val Trp Pro Ala Leu Leu Thr
      50             55             60

Ser Val Ser Arg Ser Phe Pro Ser His Glu Val Pro Ser Gly His Gly
      65             70             75             80

Asp Glu Gly Arg Glu Gly Thr Gly
      85

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&lt;210&gt; 1224

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (279)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1224

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Ala Thr Arg Arg Arg Ala Ala Glu Ala Gly Met Ala Ala Val Leu Gln
 1             5             10             15

Arg Val Glu Arg Leu Ser Asn Arg Val Val Arg Val Leu Gly Cys Asn
      20             25             30

Pro Gly Pro Met Thr Leu Gln Gly Thr Asn Thr Tyr Leu Val Gly Thr
      35             40             45

Gly Pro Arg Arg Ile Leu Ile Asp Thr Gly Glu Pro Ala Ile Pro Glu
      50             55             60

Tyr Ile Ser Cys Leu Lys Gln Ala Leu Thr Glu Phe Asn Thr Ala Ile
      65             70             75             80

Gln Glu Ile Val Val Thr His Trp His Arg Asp His Ser Gly Gly Ile
      85             90             95

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1249

Gly Asp Ile Cys Lys Ser Ile Asn Asn Asp Thr Thr Tyr Cys Ile Lys  
                   100                  105                  110  
 Lys Leu Pro Arg Asn Pro Gln Arg Glu Glu Ile Ile Gly Asn Gly Glu  
                   115                  120                  125  
 Gln Gln Tyr Val Tyr Leu Lys Asp Gly Asp Val Ile Lys Thr Glu Gly  
                   130                  135                  140  
 Ala Thr Leu Arg Val Leu Tyr Thr Pro Gly His Thr Asp Asp His Met  
                   145                  150                  155                  160  
 Ala Leu Leu Leu Glu Glu Glu Asn Ala Ile Phe Ser Gly Asp Cys Ile  
                   165                  170                  175  
 Leu Gly Glu Gly Thr Thr Val Phe Glu Asp Leu Tyr Asp Tyr Met Asn  
                   180                  185                  190  
 Ser Leu Lys Glu Leu Leu Lys Ile Lys Ala Asp Ile Ile Tyr Pro Gly  
                   195                  200                  205  
 His Gly Pro Val Ile His Asn Ala Glu Ala Lys Ile Gln Gln Tyr Ile  
                   210                  215                  220  
 Ser His Arg Asn Ile Arg Glu Gln Gln Ile Leu Thr Leu Phe Arg Glu  
                   225                  230                  235                  240  
 Asn Phe Glu Lys Ser Phe Thr Val Met Glu Leu Val Lys Ile Ile Tyr  
                   245                  250                  255  
 Lys Asn Thr Pro Glu Asn Leu His Glu Met Ala Lys His Asn Leu Leu  
                   260                  265                  270  
 Leu His Leu Lys Lys Leu Xaa Lys Glu Gly Lys Ile Phe Ser Asn Thr  
                   275                  280                  285  
 Asp Pro Asp Lys Lys Trp Lys Ala His Leu  
                   290                  295

&lt;210&gt; 1225

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1225

Val Ser Gly Asp Tyr Gly His Pro Val Tyr Ile Val Gln Asp Gly Pro  
   1                  5                  10                  15

1250

Pro Gln Ser Pro Pro Asn Ile Tyr Tyr Lys Val  
                   20                  25

&lt;210&gt; 1226

&lt;211&gt; 380

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1226

Glu Gln Glu Leu Asp Thr Leu Lys Arg Lys Ser Pro Ser Asp Leu Trp  
   1                  5                  10                  15

Lys Glu Asp Leu Ala Thr Phe Ile Glu Glu Leu Glu Ala Val Glu Ala  
                   20                  25                  30

Lys Glu Lys Gln Asp Glu Gln Val Gly Leu Pro Gly Lys Val Gly Lys  
                   35                  40                  45

Ala Lys Gly Lys Lys Thr Gln Met Ala Glu Val Leu Pro Ser Pro Arg  
                   50                  55                  60

Gly Gln Arg Val Ile Pro Arg Ile Thr Ile Glu Met Lys Ala Glu Ala  
   65                  70                  75                  80

Glu Lys Lys Asn Lys Lys Lys Ile Lys Asn Glu Asn Thr Glu Gly Ser  
                   85                  90                  95

Pro Gln Glu Asp Gly Val Glu Leu Glu Gly Leu Lys Gln Arg Leu Glu  
                   100                  105                  110

Lys Lys Gln Lys Arg Glu Pro Gly Thr Lys Thr Lys Lys Gln Thr Thr  
                   115                  120                  125

Leu Ala Phe Lys Pro Ile Lys Lys Gly Lys Lys Arg Asn Pro Trp Ser  
                   130                  135                  140

Asp Ser Glu Ser Asp Arg Ser Ser Asp Glu Ser Asn Phe Asp Val Pro  
   145                  150                  155                  160

Pro Arg Glu Thr Glu Pro Arg Arg Ala Ala Thr Lys Thr Lys Phe Thr  
                   165                  170                  175

Met Asp Leu Asp Ser Asp Glu Asp Phe Ser Asp Phe Asp Glu Lys Thr  
                   180                  185                  190

Asp Asp Glu Asp Phe Val Pro Ser Asp Ala Ser Pro Pro Lys Thr Lys  
                   195                  200                  205

Thr Ser Pro Lys Leu Ser Asn Lys Glu Leu Lys Pro Gln Lys Ser Val

1251

210	215	220
Val Ser Asp Leu Glu Ala Asp Asp Val Lys Gly Ser Val Pro Leu Ser		
225	230	235 240
Ser Ser Pro Pro Ala Thr His Phe Pro Asp Glu Thr Glu Ile Thr Asn		
	245	250 255
Pro Val Pro Lys Lys Asn Val Thr Val Lys Lys Thr Ala Ala Lys Ser		
	260	265 270
Gln Ser Ser Thr Ser Thr Thr Gly Ala Lys Lys Arg Ala Ala Pro Lys		
	275	280 285
Gly Thr Lys Arg Asp Pro Ala Leu Asn Ser Gly Val Ser Gln Lys Pro		
	290	295 300
Asp Pro Ala Lys Thr Lys Asn Arg Arg Lys Arg Lys Pro Ser Thr Ser		
	305	310 315 320
Asp Asp Ser Asp Ser Asn Phe Glu Lys Ile Val Ser Lys Ala Val Thr		
	325	330 335
Ser Lys Lys Ser Lys Gly Glu Ser Asp Asp Phe His Met Asp Phe Asp		
	340	345 350
Ser Ala Val Ala Pro Arg Ala Lys Ser Val Arg Ala Lys Lys Pro Ile		
	355	360 365
Lys Tyr Leu Glu Glu Ser Asp Glu Asp Asp Leu Phe		
	370	375 380

&lt;210&gt; 1227

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1227

Phe Asn Ser Leu Lys Cys Leu Phe Gly Ile Met Ile Gly Asn Leu Asp
1 5 10 15

Glu Phe Arg Gly Lys Lys Leu Ser Ala Xaa Met Leu Arg Ala His Leu
20 25 30

1252

Ser Pro His Thr Pro Thr Glu Leu Thr Gly Leu Gln Cys Phe Ile Arg  
                   35                  40                  45

Lys Phe Pro Ile Pro Leu Ser Cys Val Phe Met Leu Lys Ile Leu Leu  
           50                  55                  60

His Phe Ser Phe Glu Cys Gln Phe Leu Thr Ser Thr Ile Ser  
       65                  70                  75

&lt;210&gt; 1228

&lt;211&gt; 222

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1228

Ala Asn Glu Lys Val Ala Leu Gln Lys Ala Leu Leu Tyr Tyr Glu Ser  
   1                  5                  10                  15

Ile His Gly Arg Pro Val Thr Lys Asn Glu Arg Gln Val Met Lys Pro  
                   20                  25                  30

Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln Ile Leu Ser Arg Ala Asn  
           35                  40                  45

Thr Ile Pro Ile Ile Gly Ser Pro Ser Ser Lys Arg Arg Ser Pro Leu  
       50                  55                  60

Leu Gln Pro Ile Ile Glu Gly Glu Thr Ala Ser Phe Phe Lys Glu Ile  
       65                  70                  75                  80

Lys Glu Glu Glu Glu Gly Ser Glu Asp Asp Ser Asn Val Lys Pro Asp  
                   85                  90                  95

Phe Met Val Thr Leu Lys Thr Asp Phe Ser Ala Arg Cys Phe Leu Asp  
           100                  105                  110

Gln Phe Glu Asp Asp Ala Asp Gly Phe Ile Ser Pro Met Asp Asp Lys  
           115                  120                  125

Ile Pro Ser Lys Cys Ser Gln Asp Thr Gly Leu Ser Asn Xaa His Ala  
       130                  135                  140

Ala Ser Ile Pro Glu Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu  
       145                  150                  155                  160



Lys	Lys	Arg	Ile	Arg	Lys	Lys	Leu	Arg	Asp	Phe	Glu	Asp	Asn	Phe	Phe
				165					170					175	
Arg	Gln	Asn	Gly	Arg	Asn	Val	Gln	Lys	Glu	Asp	Arg	Thr	Pro	Met	Ala
			180					185					190		
Glu	Glu	Tyr	Ser	Glu	Tyr	Lys	His	Ile	Lys	Ala	Lys	Leu	Arg	Leu	Leu
		195					200					205			
Glu	Val	Leu	Ile	Ser	Lys	Arg	Asp	Thr	Asp	Ser	Lys	Ser	Met		
	210					215				220					

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<210> 1229
<211> 220
<212> PRT
<213> Homo sapiens
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<400> 1229
Lys Gly Ser Thr Leu Gly His Leu Cys Thr Ala Met Ala Gly Met Met
  1              5              10              15

Lys Gly Ile Arg Trp Ser Cys Pro Ala Ile Ala Ser Ile Ser Gln Thr
      20              25              30

Arg Ser Ser Gln Glu Lys Asp Ser Ser Ser Pro Pro Trp Asp Leu Arg
      35              40              45

Arg Ala Ala Thr Glu Gly Glu Ala Pro Asp Ala Leu Cys Gln Ser Gln
      50              55              60

Val Arg Gly Gln Ser Ser Pro Cys His Pro Trp Cys Arg Pro Ala Pro
  65              70              75              80

Ser Ser Phe Met Pro Gly Pro Ala Gly Thr Pro Ala Thr Thr Glu Ser
      85              90              95

Thr Arg Ser Ala Leu Cys Ser Trp Arg Arg His Ser Arg Val Glu Ser
      100             105             110

Cys Pro Ser Leu Ser Leu Gly His Leu Gly Gly Glu Ser Gly Leu Arg
      115             120             125

Ser Glu Leu Asp Pro Gly Asp Leu Gly Ser Phe Phe Leu Ala His Gln
      130             135             140

Pro Cys Arg Pro His Leu Ser Gln Asn Pro Leu Cys Leu Gly Gly Ser
  145             150             155             160

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1254

Gly Ser Ala Leu Leu Cys Ser Arg Arg Leu Gly Ser Gly Gln His Gln  
                     165                    170                    175  
 Val Gly Lys Trp Ser Pro Pro Ser Cys Phe Cys Arg Ile Leu Thr Val  
                     180                    185                    190  
 Gly Leu Glu Glu Lys Ser Ile Asp Leu Ile Ser Pro Thr Thr His Pro  
                     195                    200                    205  
 Ser Phe Ser Phe Phe His His Ser Pro Pro Gln Leu  
                     210                    215                    220

&lt;210&gt; 1230

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1230

Glu Leu Lys Arg Leu Thr Ile Gly Lys Asn Xaa Xaa Arg Leu Thr Gly  
   1                    5                    10                    15  
 Asn Arg Xaa Gly Ile Pro Gly Ser Thr His Ala Ser Glu Xaa Glu Val  
                     20                    25                    30  
 Glu Glu Glu Gly Asp Val Asp Ser Asp Glu Glu Glu Glu Asp Glu  
                     35                    40                    45  
 Glu Ser Ser Ser Glu Gly Leu Glu Ala Glu Asp Trp Ala Gln Gly Val  
                     50                    55                    60

1255

Val Glu Ala Gly Gly Ser Phe Gly Ala Tyr Gly Ala Gln Glu Glu Ala  
 65 70 75 80

Gln Cys Pro Thr Leu His Phe Leu Glu Gly Gly Glu Asp Ser Asp Ser  
 85 90 95

Asp Ser Glu Glu Glu Asp Asp Glu Glu Glu Asp Asp Glu Asp Glu Asp  
 100 105 110

Asp Asp Asp Asp Glu Glu Asp Gly Asp Glu Val Pro Val Pro Ser Phe  
 115 120 125

Gly Glu Ala Met Ala Tyr Phe Ala Met Val Lys Arg Tyr Leu Thr Ser  
 130 135 140

Phe Pro Ile Asp Asp Arg Val Gln Ser His Ile Leu His Leu Glu His  
 145 150 155 160

Asp Leu Val His Val Thr Arg Lys Asn His Ala Arg Gln Ala Gly Val  
 165 170 175

Arg Gly Leu Gly His Gln Ser  
 180

<210> 1231

<211> 59

<212> PRT

<213> Homo sapiens

<400> 1231

Asn Leu Tyr Lys Leu Lys Leu Asn His Glu Leu Gln Lys Lys Ser Ile  
 1 5 10 15

Leu Pro Lys Leu Asp Val Thr Thr Leu Thr Ser Leu Lys Tyr Glu Val  
 20 25 30

Asp Cys Leu Lys Asp Ser Ala Tyr Ile Leu Val Cys Thr Phe Arg Asn  
 35 40 45

Ile Phe Leu Gly Lys Ser Thr Gln His Phe Leu  
 50 55

<210> 1232

<211> 135

<212> PRT

<213> Homo sapiens

1256

&lt;400&gt; 1232

Gly Ser Thr His Ala Ser Gly Pro Pro Gln Ala Pro Gln Leu Ile Tyr  
 1 5 10 15

Gln Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro  
 20 25 30

Arg Glu Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu  
 35 40 45

Arg Ala Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val  
 50 55 60

Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln  
 65 70 75 80

Gly Gly Ala Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala  
 85 90 95

Phe Asp Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala  
 100 105 110

Pro Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr  
 115 120 125

Leu Gly Leu Asp Val Pro Val  
 130 135

&lt;210&gt; 1233

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1233

Arg Gly Glu Thr Arg Glu Met Ala Gly Asn Leu Leu Ser Gly Ala Gly  
 1 5 10 15

Arg Arg Leu Trp Asp Trp Val Pro Leu Ala Cys Arg Ser Phe Ser Leu  
 20 25 30

Gly Val Pro Arg Leu Ile Gly Ile Arg Leu Thr Leu Pro Pro Pro Lys  
 35 40 45

Val Val Asp Arg Trp Asn Glu Lys Arg Ala Met Phe Gly Val Tyr Asp  
 50 55 60

Asn Ile Gly Ile Leu Gly Asn Phe Glu Lys His Pro Lys Glu Leu Ile  
 65 70 75 80

1257

Arg Gly Pro Ile Trp Leu Arg Gly Trp Lys Gly Asn Glu Leu Gln Arg  
                     85                    90                    95

Cys Ile Arg Lys Arg Lys Met Val Gly Ser Arg Met Phe Ala Asp Asp  
                     100                    105                    110

Leu His Asn Leu Asn Lys Arg Ile Arg Tyr Leu Tyr Lys His Phe Asn  
                     115                    120                    125

Arg His Gly Lys Phe Arg  
                     130

<210> 1234

<211> 282

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1234

Thr Gly Pro Glu Phe Pro Gly Xaa Pro Thr Arg Pro Arg Thr Ala Ala  
                     1                    5                    10                    15

Ala Xaa Ser Ala Arg Thr Arg Thr Arg Gly Ser Pro Arg Met Gly Glu  
                     20                    25                    30

Phe Asn Glu Lys Lys Thr Thr Cys Gly Thr Val Cys Leu Lys Tyr Leu  
                     35                    40                    45

Leu Phe Thr Tyr Asn Cys Cys Phe Trp Leu Ala Gly Leu Ala Val Met  
                     50                    55                    60

Ala Val Gly Ile Trp Thr Leu Ala Leu Lys Ser Asp Tyr Ile Ser Leu  
                     65                    70                    75                    80

Leu Ala Ser Gly Thr Tyr Leu Ala Thr Ala Tyr Ile Leu Val Val Ala  
                     85                    90                    95

Gly Thr Val Val Met Val Thr Gly Val Leu Gly Cys Cys Ala Thr Phe  
                     100                    105                    110

1258

Lys Glu Arg Arg Asn Leu Leu Arg Leu Tyr Phe Ile Leu Leu Leu Ile  
 115 120 125

Ile Phe Leu Leu Glu Ile Ile Ala Gly Ile Leu Ala Tyr Ala Tyr Tyr  
 130 135 140

Gln Gln Leu Asn Thr Glu Leu Lys Glu Asn Leu Lys Asp Thr Met Thr  
 145 150 155 160

Lys Arg Tyr His Gln Pro Gly His Glu Ala Val Thr Ser Ala Val Asp  
 165 170 175

Gln Leu Gln Gln Glu Phe His Cys Cys Gly Ser Asn Asn Ser Gln Asp  
 180 185 190

Trp Arg Asp Ser Glu Trp Ile Arg Ser Gln Glu Ala Gly Gly Arg Val  
 195 200 205

Val Pro Asp Ser Cys Cys Lys Thr Val Val Ala Leu Cys Gly Gln Arg  
 210 215 220

Asp His Ala Ser Asn Ile Tyr Lys Val Glu Gly Gly Cys Ile Thr Lys  
 225 230 235 240

Leu Glu Thr Phe Ile Gln Glu His Leu Arg Val Ile Gly Ala Val Gly  
 245 250 255

Ile Gly Ile Ala Cys Val Gln Val Phe Gly Met Ile Phe Thr Cys Cys  
 260 265 270

Leu Tyr Arg Ser Leu Lys Leu Glu His Tyr  
 275 280

&lt;210&gt; 1235

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1235

Ala Glu Ile Gln Val Phe Gln Val Gly Leu Val Ser Trp Gly Leu Tyr  
 1 5 10 15

Asn Pro Cys Leu Gly Ser Ala Asp Lys Asn Ser Arg Lys Arg Ala Pro  
 20 25 30

Arg Ser Lys Val Pro Pro Pro Arg Asp Phe His Ile Asn Leu Phe Arg  
 35 40 45

1259

Met Gln Pro Trp Leu Arg Gln His Leu Gly Asp Val Leu Asn Phe Leu  
 50 55 60

Pro Leu  
 65

&lt;210&gt; 1236

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1236

Ala Arg Arg Arg Arg Gly Gly Trp Ala Gly Gly Gly Gly Thr Arg  
 1 5 10 15

Arg Ala Leu Gly Val Pro Val Ala Arg Arg Arg Arg Met Trp Arg Ala  
 20 25 30

Glu Gly Lys Trp Leu Pro Lys Thr Ser Arg Lys Ser Val Ser Gln Ser  
 35 40 45

Val Phe Cys Gly Thr Ser Thr Tyr Cys Val Leu Asn Thr Val Pro Pro  
 50 55 60

Ile Glu Asp Asp His Gly Asn Ser Asn Ser Ser His Val Lys Ile Phe  
 65 70 75 80

Leu Pro Lys Lys Leu Leu Glu Cys Leu Pro Lys Cys Ser Ser Leu Pro  
 85 90 95

Lys Glu Arg His Arg Trp Asn Thr Asn Glu Arg Ser  
 100 105

&lt;210&gt; 1237

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1237

Arg Gly Gly Gly Ser Lys Gly Asn Glu Val Arg Pro Val Ala Gly Ser  
 1 5 10 15

Ala Glu Ser Ala Ala Leu Arg Leu Arg Ala Pro Leu Gln Gln Val Gln  
 20 25 30

Ala Gln Leu Ser Pro Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala Val  
 35 40 45

1260

Leu Thr Leu Gln Ile Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp Thr  
           50                          55                          60  
 Thr Trp Thr Gln Ser Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu Pro  
           65                          70                          75                          80  
 Ala Trp Arg Ser Ser Gln Arg Ser Thr Gln Lys Asp Pro Val Pro Tyr  
                           85                          90                          95  
 Gln Pro Pro Phe Leu Cys Gln Trp Gly Arg His Gln Pro Ser Trp Lys  
                           100                          105                          110  
 Pro Leu Met Asn  
           115

&lt;210&gt; 1238

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1238

Val Thr Ser Glu Gly Val Arg Val Arg Ser Ser Arg Gly Arg Ala Xaa  
           1                          5                          10                          15  
 Gly Val Trp Arg Phe Glu Arg Asp Glu Asp Gly Thr Gly Ala Gly Cys  
                           20                          25                          30  
 Gly Gln Trp Thr Arg Phe Cys Arg Glu Pro Lys Met Ala Val Asn Val  
                           35                          40                          45  
 Tyr Ser Thr Ser Val Thr Ser Asp Asn Leu Ser Arg His Asp Met Leu  
           50                          55                          60  
 Ala Trp Ile Asn Glu Ser Leu Gln Leu Asn Leu Thr Lys Ile Glu Gln  
           65                          70                          75                          80  
 Leu Cys Ser Gly Ala Ala Tyr Cys Gln Phe Met Asp Met Leu Phe Pro  
                           85                          90                          95  
 Gly Ser Ile Ala Leu Lys Lys Val Lys Phe Gln Ala Lys Leu Glu His  
                           100                          105                          110  
 Glu Tyr Ile Gln Asn Phe Lys Ile Leu Gln Ala Gly Phe Lys Arg Met



1261

115	120	125
Gly Val Asp Lys Ile Ile Pro Val Asp Lys Leu Val Lys Gly Lys Phe		
130	135	140
Gln Asp Asn Phe Glu Phe Val Gln Trp Phe Lys Lys Phe Phe Asp Ala		
145	150	155 160
Asn Tyr Asp Gly Lys Asp Tyr Asp Pro Val Ala Ala Arg Gln Gly Gln		
165	170	175
Glu Thr Ala Val Ala Pro Ser Leu Val Ala Pro Ala Leu Asn Lys Pro		
180	185	190
Lys Lys Pro Leu Thr Ser Ser Ser Ala Ala Pro Gln Arg Pro Ile Ser		
195	200	205
Thr Gln Arg Thr Ala Ala Ala Pro Lys Ala Gly Pro Gly Val Val Arg		
210	215	220
Lys Asn Pro Gly Val Gly Asn Gly Asp Asp Glu Ala Ala Glu Leu Met		
225	230	235 240
Gln Gln Val Asn Val Leu Lys Leu Thr Val Glu Asp Leu Glu Lys Glu		
245	250	255
Arg Asp Phe Tyr Phe Gly Lys Leu Arg Asn Ile Glu Leu Ile Cys Gln		
260	265	270
Glu Asn Glu Gly Glu Asn Asp Pro Val Leu Gln Arg Ile Val Asp Ile		
275	280	285
Leu Tyr Ala Thr Asp Glu Gly Phe Val Ile Pro Asp Glu Gly Gly Pro		
290	295	300
Gln Glu Glu Gln Glu Glu Tyr		
305	310	

&lt;210&gt; 1239

&lt;211&gt; 345

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1239

Ala Ala Arg Leu Ala Val Glu Met Lys Thr Asp Leu Leu Ile Val Leu
1 5 10 15

Ser Asp Val Glu Gly Leu Phe Asp Ser Pro Pro Gly Ser Asp Asp Ala
20 25 30

1262

Lys Leu Ile Asp Ile Phe Tyr Pro Gly Asp Gln Gln Ser Val Thr Phe  
 35 40 45  
 Gly Thr Lys Ser Arg Val Gly Met Gly Gly Met Glu Ala Lys Val Lys  
 50 55 60  
 Ala Ala Leu Trp Ala Leu Gln Gly Gly Thr Ser Val Val Ile Ala Asn  
 65 70 75 80  
 Gly Thr His Pro Lys Val Ser Gly His Val Ile Thr Asp Ile Val Glu  
 85 90 95  
 Gly Lys Lys Val Gly Thr Phe Phe Ser Glu Val Lys Pro Ala Gly Pro  
 100 105 110  
 Thr Val Glu Gln Gln Gly Glu Met Ala Arg Ser Gly Gly Arg Met Leu  
 115 120 125  
 Ala Thr Leu Glu Pro Glu Gln Arg Ala Glu Ile Ile His His Leu Ala  
 130 135 140  
 Asp Leu Leu Thr Asp Gln Arg Asp Glu Ile Leu Leu Ala Asn Lys Lys  
 145 150 155 160  
 Asp Leu Glu Glu Ala Glu Gly Arg Leu Ala Ala Pro Leu Leu Lys Arg  
 165 170 175  
 Leu Ser Leu Ser Thr Ser Lys Leu Asn Ser Leu Ala Ile Gly Leu Arg  
 180 185 190  
 Gln Ile Ala Ala Ser Ser Gln Asp Ser Val Gly Arg Val Leu Arg Arg  
 195 200 205  
 Thr Arg Ile Ala Lys Asn Leu Glu Leu Glu Gln Val Thr Val Pro Ile  
 210 215 220  
 Gly Val Leu Leu Val Ile Phe Glu Ser Arg Pro Asp Cys Leu Pro Gln  
 225 230 235 240  
 Val Ala Ala Leu Ala Ile Ala Ser Gly Asn Gly Leu Leu Leu Lys Gly  
 245 250 255  
 Gly Lys Glu Ala Ala His Ser Asn Arg Ile Leu His Leu Leu Thr Gln  
 260 265 270  
 Glu Ala Leu Ser Ile His Gly Val Lys Glu Ala Val Gln Leu Val Asn  
 275 280 285  
 Thr Arg Glu Glu Val Glu Asp Leu Cys Arg Leu Asp Lys Met Ile Asp  
 290 295 300

1263

Leu Ile Ile Pro Arg Gly Ser Ser Gln Leu Val Arg Asp Ile Gln Lys  
 305 310 315 320

Ala Ala Lys Gly Ile Pro Val Met Gly His Ser Glu Gly Ile Cys Ala  
 325 330 335

His Val Cys Gly Phe Arg Gly Gln Cys  
 340 345

<210> 1240

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1240

Gly Tyr Cys Phe Ile Ser Thr Ser Arg Thr Pro Lys Glu Thr Ile Trp  
 1 5 10 15

Val Lys Ala Thr Ser Thr Ala Leu Ala Leu His Arg Phe Leu Glu Phe  
 20 25 30

Leu Ser Phe Thr Phe Ser Leu Thr Gln His Cys Leu Leu Phe Val Phe  
 35 40 45

Val Ala Trp Phe Val Phe Phe Leu Pro Cys Ser Pro Asn Leu Cys Pro  
 50 55 60

Asn Ser Phe Gly Leu Met Gln Lys Tyr Leu Cys Gly Arg Glu Glu Leu  
 65 70 75 80

Phe Ser Trp Arg Ala Phe Arg  
 85

<210> 1241

<211> 196

<212> PRT

<213> Homo sapiens

<400> 1241

Arg Ala Gly Ser Pro Ala Ser Pro Ala His Val Ala Trp Pro Pro Ala  
 1 5 10 15

Pro Thr Trp Ser Arg Ala Leu Pro Arg Val Ala Pro Arg Ser Ser Ser  
 20 25 30

Arg Arg Gly Arg Arg Tyr Pro Glu Arg Ser Gln Arg Arg Arg Glu Val

1264

35	40	45
Ala Ala Thr Ala Met Pro Lys Asn Lys Gly Lys Gly Gly Lys Asn Arg		
50	55	60
Arg Arg Gly Lys Asn Glu Asn Glu Ser Glu Lys Arg Glu Leu Val Phe		
65	70	75
Lys Glu Asp Gly Gln Glu Tyr Ala Gln Val Ile Lys Met Leu Gly Asn		
85	90	95
Gly Arg Leu Glu Ala Met Cys Phe Asp Gly Val Lys Arg Leu Cys His		
100	105	110
Ile Arg Gly Lys Leu Arg Lys Lys Val Trp Ile Asn Thr Ser Asp Ile		
115	120	125
Ile Leu Val Gly Leu Arg Asp Tyr Gln Asp Asn Lys Ala Asp Val Ile		
130	135	140
Leu Lys Tyr Asn Ala Asp Glu Ala Arg Ser Leu Lys Ala Tyr Gly Glu		
145	150	155
Leu Pro Glu His Ala Lys Ile Asn Glu Thr Asp Thr Phe Gly Pro Gly		
165	170	175
Asp Asp Asp Glu Ile Gln Phe Asp Asp Ile Gly Asp Asp Asp Glu Asp		
180	185	190
Ile Asp Asp Ile		
195		

&lt;210&gt; 1242

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1242

Ala Val Xaa Phe Lys Asp Xaa Ile Tyr Glu Ile Phe Gln Lys Leu Asn

1265

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      1             5             10             15
Thr Ser Ile Gln Val Val Leu Leu Ser Ala Thr Met Pro Thr Asp Val
      20             25             30
Leu Glu Val Thr Lys Lys Phe Met Arg Asp Pro Ile Arg Ile Leu Val
      35             40             45
Lys Lys Glu Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Tyr Ile Asn
      50             55             60
Val Glu Arg Glu Glu Trp Lys Leu Asp Thr Leu Cys Asp Leu Tyr Glu
      65             70             75             80
Thr Leu Thr Ile Thr Gln Ala Val Ile Phe Leu Asn Thr Arg Arg Lys
      85             90             95
Val Asp Trp Leu Thr Glu Lys Met His Ala Arg Asp Phe Thr Val Ser
      100            105            110
Ala Leu His Gly Asp Met Asp Gln Lys Glu Arg Asp Val Ile Met Arg
      115            120            125
Glu Phe Arg Ser Gly Ser Ser Arg Val Leu Ile Thr Thr Asp Leu Leu
      130            135            140
Ala Arg Gly Ile Asp Val Gln Gln Val Ser Leu Val Ile Asn Tyr Asp
      145            150            155            160
Leu Pro Thr Asn Arg Glu Asn Tyr Ile His Arg Ile Gly Arg Gly Gly
      165            170            175
Arg Phe Gly Arg Lys Gly Val Ala Ile Asn Phe Val Thr Glu Glu Asp
      180            185            190
Lys Arg Ile Leu Arg Asp Ile Glu Thr Phe Tyr Asn Thr Thr Val Glu
      195            200            205
Glu Met Pro Met Asn Val Ala Asp Leu Ile
      210            215

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&lt;210&gt; 1243

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1243

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Leu Asp Gly Ser Ala Arg Ala Glu Leu Ala Leu Ser Val Ala Val Asn
  1             5             10             15

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1266

Val Ala Pro Gly Arg Leu Cys Ala Gly Arg Tyr Ser Ser Asp Val Gln  
                   20                  25                  30  
 Glu Met Ile Leu Ser Ser Ala Thr Ala Asp Arg Ile Pro Ile Ala Val  
                   35                  40                  45  
 Ser Gly Val Arg Gly Met Gly Phe Leu Met Arg His His Ile Glu Thr  
                   50                  55                  60  
 Gly Gly Gly Gln Leu Pro Ala Lys Leu Ser Ser Leu Phe Val Lys Cys  
                   65                  70                  75                  80  
 Leu Gln Asn Pro Ser Ser Asp Ile Arg Leu Val Ala Glu Lys Met Ile  
                   85                  90                  95  
 Trp Trp Ala Asn Lys Asp Pro Leu Pro Pro Leu Asp Pro Gln Ala Ile  
                   100                  105                  110  
 Lys Pro Ile Leu Lys Ala Leu Leu Asp Asn Thr Lys Asp Lys Asn Thr  
                   115                  120                  125  
 Val Val Arg Ala Tyr Ser Asp Gln Ala Ile Val Asn Leu Leu Lys Met  
                   130                  135                  140  
 Arg Gln Gly Glu Glu Val Phe Gln Ser Leu Ser Lys Ile Leu Asp Val  
                   145                  150                  155                  160  
 Ala Ser Leu Glu Val Leu Asn Glu Val Asn Arg Ser Pro  
                   165                  170

&lt;210&gt; 1244

&lt;211&gt; 222

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1244

Tyr Ile Lys Ile Tyr Gln Gly Glu Glu Leu Pro His Pro Lys Ser Met  
           1                  5                  10                  15

1267

Xaa Gln Ala Thr Ala Glu Ala Asn Asn Leu Ala Ala Val Ala Thr Ala  
                   20                  25                  30  
 Lys Asp Thr Tyr Asn Lys Lys Met Glu Glu Ile Cys Gly Gly Asp Lys  
                   35                  40                  45  
 Pro Phe Leu Ala Pro Asn Asp Leu Gln Thr Lys His Leu Gln Leu Lys  
                   50                  55                  60  
 Glu Glu Ser Val Lys Leu Phe Xaa Gly Val Lys Lys Met Gly Gly Glu  
                   65                  70                  75                  80  
 Glu Phe Ser Arg Arg Tyr Leu Gln Gln Leu Glu Ser Glu Ile Asp Glu  
                   85                  90                  95  
 Leu Tyr Ile Gln Tyr Ile Lys His Asn Asp Ser Lys Asn Ile Phe His  
                   100                  105                  110  
 Ala Ala Arg Thr Pro Ala Thr Leu Phe Val Val Ile Phe Ile Thr Tyr  
                   115                  120                  125  
 Val Ile Ala Gly Val Thr Gly Phe Ile Gly Leu Asp Ile Ile Ala Ser  
                   130                  135                  140  
 Leu Cys Asn Met Ile Met Gly Leu Thr Leu Ile Thr Leu Cys Thr Trp  
                   145                  150                  155                  160  
 Ala Tyr Ile Arg Tyr Ser Gly Glu Tyr Arg Glu Leu Gly Ala Val Ile  
                   165                  170                  175  
 Asp Gln Val Ala Ala Ala Leu Trp Asp Gln Ala Leu Tyr Lys Leu Tyr  
                   180                  185                  190  
 Ser Ala Ala Ala Thr His Arg His Leu Tyr His Gln Ala Phe Pro Thr  
                   195                  200                  205  
 Pro Lys Ser Glu Ser Thr Glu Gln Ser Glu Lys Lys Lys Met  
                   210                  215                  220

&lt;210&gt; 1245

&lt;211&gt; 278

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1245

Ser Ala Glu Asp Val Glu Phe Gln Lys Glu Val Ala Gln Val Arg Lys  
                   1                  5                  10                  15

1268

Arg Ile Thr Gln Arg Lys Lys Gln Glu Gln Leu Thr Pro Gly Val Val  
                   20                  25                  30  
 Tyr Val Arg His Leu Pro Asn Leu Leu Asp Glu Thr Gln Ile Phe Ser  
                   35                  40                  45  
 Tyr Phe Ser Gln Phe Gly Thr Val Thr Arg Phe Arg Leu Ser Arg Ser  
                   50                  55                  60  
 Lys Arg Thr Gly Asn Ser Lys Gly Tyr Ala Phe Val Glu Phe Glu Ser  
                   65                  70                  75                  80  
 Glu Asp Val Ala Lys Ile Val Ala Glu Thr Met Asn Asn Tyr Leu Phe  
                   85                  90                  95  
 Gly Glu Arg Leu Leu Glu Cys His Phe Met Pro Pro Glu Lys Val His  
                   100                  105                  110  
 Lys Glu Leu Phe Lys Asp Trp Asn Ile Pro Phe Lys Gln Pro Ser Tyr  
                   115                  120                  125  
 Pro Ser Val Lys Arg Tyr Asn Arg Asn Arg Thr Leu Thr Gln Lys Leu  
                   130                  135                  140  
 Arg Met Glu Glu Arg Phe Lys Lys Lys Glu Arg Leu Leu Arg Lys Lys  
                   145                  150                  155                  160  
 Leu Ala Lys Lys Gly Ile Asp Tyr Asp Phe Pro Ser Leu Ile Leu Gln  
                   165                  170                  175  
 Lys Thr Glu Ser Ile Ser Lys Thr Asn Arg Gln Thr Ser Thr Lys Gly  
                   180                  185                  190  
 Gln Val Leu Arg Lys Lys Lys Lys Lys Val Ser Gly Thr Leu Asp Thr  
                   195                  200                  205  
 Pro Glu Lys Thr Val Asp Ser Gln Gly Pro Thr Pro Val Cys Thr Pro  
                   210                  215                  220  
 Thr Phe Leu Glu Arg Arg Lys Ser Gln Val Ala Glu Leu Asn Asp Asp  
                   225                  230                  235                  240  
 Asp Lys Asp Asp Glu Ile Val Phe Lys Gln Pro Ile Ser Cys Val Lys  
                   245                  250                  255  
 Glu Glu Ile Gln Glu Thr Gln Thr Pro Thr His Ser Arg Lys Lys Arg  
                   260                  265                  270  
 Arg Arg Ser Ser Asn Gln  
                   275



1269

&lt;210&gt; 1246

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1246

Ser Pro Pro Pro Leu Ser Leu Ile Leu Leu Ser Pro Ile Lys Ala Lys  
 1 5 10 15

Tyr Gly Leu Thr Thr Ser Pro Lys Ser Val Leu Arg Pro Ser Leu Cys  
 20 25 30

Leu Cys Ala Leu Leu Gly Val Ser Gln Arg Ser Gly Gln Asp Cys Ala  
 35 40 45

Gly Pro Ala Ser Pro Cys Ala Ser Gln Glu His Arg Gln Gly Val Leu  
 50 55 60

Val Ala Val Ala Gly His Leu Ser Pro Ser Ser Leu Leu Asn Val Leu  
 65 70 75 80

Thr Ala Arg Gly Asn Gly Val Ser Phe Pro Thr Lys Lys Pro Leu Leu  
 85 90 95

Tyr Ile Phe Xaa Leu Gln Ser His Arg Leu Gln Thr Thr Leu Leu Phe  
 100 105 110

Phe Met Asp Phe Ser Ala His Phe Arg  
 115 120

&lt;210&gt; 1247

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1247

Ile Phe His Arg Val Leu Leu Cys Asp Leu Asn Phe Ser Leu Gly Pro  
 1 5 10 15

Ala Ser Asp Ile Val Gly Gly Leu Ser Trp Phe Gln Glu Ile Arg Leu  
 20 25 30

1270

Ala Phe Ser Ser

35

&lt;210&gt; 1248

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1248

Trp Ile Pro Arg Ala Cys Arg Glu Phe Gly Thr Arg Phe Gly Gly Val  
 1 5 10 15

Thr Arg Gly Phe Asn Met Arg Ile Glu Lys Cys Tyr Phe Cys Ser Gly  
 20 25 30

Pro Ile Tyr Pro Gly His Gly Met Met Phe Val Arg Asn Asp Cys Lys  
 35 40 45

Val Phe Arg Phe Cys Lys Ser Lys Cys His Lys Asn Phe Lys Lys Lys  
 50 55 60

Arg Asn Pro Arg Lys Val Arg Trp Thr Lys Ala Phe Arg Lys Ala Ala  
 65 70 75 80

Gly Lys Glu Leu Thr Val Asp Asn Ser Phe Glu Phe Glu Lys Arg Arg  
 85 90 95

Asn Glu Pro Ile Lys Tyr Gln Arg Glu Leu Trp Asn Lys Thr Ile Asp  
 100 105 110

Ala Met Lys Arg Val Glu Glu Ile Lys Gln Lys Arg Gln Ala Lys Phe  
 115 120 125

Ile Met Asn Arg Leu Lys Lys Asn Lys Glu Leu Gln Lys Val Gln Asp  
 130 135 140

Ile Lys Glu Val Lys Gln Asn Ile His Leu Ile Arg Ala Pro Leu Ala  
 145 150 155 160

Gly Lys Gly Lys Gln Leu Glu Glu Lys Met Val Gln Gln Leu Gln Glu  
 165 170 175

Asp Val Asp Met Glu Asp Ala Pro  
 180

&lt;210&gt; 1249

&lt;211&gt; 188

1271

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1249

Gly Cys Pro Ala His Ser Pro Gly Ser Ala Lys Arg Trp Thr Gln Ala  
 1 5 10 15

Ala Met Ser Arg Pro Arg Met Arg Leu Val Val Thr Ala Asp Asp Phe  
 20 25 30

Gly Tyr Cys Pro Arg Arg Asp Glu Gly Ile Val Glu Ala Phe Leu Ala  
 35 40 45

Gly Ala Val Thr Ser Val Ser Leu Leu Val Asn Gly Ala Ala Thr Glu  
 50 55 60

Ser Ala Ala Glu Leu Ala Arg Arg His Ser Ile Pro Thr Gly Leu His  
 65 70 75 80

Ala Asn Leu Ser Glu Gly Arg Pro Val Gly Pro Ala Arg Arg Gly Ala  
 85 90 95

Ser Ser Leu Leu Gly Pro Glu Xaa Phe Phe Leu Gly Lys Met Gly Phe  
 100 105 110

Arg Glu Ala Val Ala Ala Gly Asp Val Asp Leu Pro Gln Val Arg Ser  
 115 120 125

Arg Ser Tyr Arg Arg Met Leu Ala Arg Thr Pro Arg Ala Pro Pro Gly  
 130 135 140

Gly Thr Val Arg Pro Leu Glu Leu Ala Val Asp Asp Phe Arg Ile Gln  
 145 150 155 160

Thr Leu Glu Pro Ser His Gly Ser Thr Arg Arg Val Ser Ser Ala Ala  
 165 170 175

Thr Pro Gly Arg Ser Arg Cys Leu Ser Leu Ala Leu  
 180 185

&lt;210&gt; 1250

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1272

<220>  
 <221> SITE  
 <222> (36)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (96)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (101)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1250

Arg Lys Asn Leu Glu Ile Tyr Glu Ala Val Thr Ser Pro Gln Gly Pro  
 1 5 10 15

Ala Met Thr Trp Ser Met Phe Ala Val Gly Trp Met Glu Leu Lys Asp  
 20 25 30

Ala Cys Gly Xaa Arg Gly Leu Leu Asp Arg Ser Phe Ala Asn Met Ala  
 35 40 45

Glu Pro Phe Lys Val Trp Thr Glu Asn Ala Asp Gly Ser Gly Ala Val  
 50 55 60

Asn Phe Leu Thr Gly Met Gly Gly Phe Leu Gln Ala Val Val Phe Gly  
 65 70 75 80

Cys Thr Gly Phe Arg Val Ser Val Ser Gly Ile Phe Tyr Gln Gly Xaa  
 85 90 95

Xaa Leu Asn Phe Xaa Phe Ser Glu Asp Ser Val Thr Val Glu Val Thr  
 100 105 110

Ala Arg Ala Gly Pro Trp Ala Pro His Leu Glu Ala Glu Leu Trp Pro  
 115 120 125

Ser Gln Ser Arg Leu Ser Leu Leu Pro Gly His Lys Val Ser Phe Pro  
 130 135 140

Arg Ser Ala Gly Arg Ile Gln Met Ser Pro Pro Lys Leu Pro Gly Ser  
 145 150 155 160

1273

Ser Ser Ser Glu Phe Pro Gly Arg Thr Phe Ser Asp Val Arg Asp Pro  
                   165                  170                  175

Leu Gln Ser Pro Leu Trp Val Thr Leu Gly Ser Ser Ser Pro Thr Glu  
                   180                  185                  190

Ser Leu Thr Val Asp Pro Ala Ser Glu  
                   195                  200

&lt;210&gt; 1251

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1251

Ser Val Gly Ser Val Ala Ala Ala Thr Arg Thr Gly Pro Val Ser Xaa  
   1                  5                  10                  15

Lys Lys Phe Arg Glu Ala Ser Trp Arg Phe Thr Phe Tyr Leu Ile Ala  
                   20                  25                  30

Phe Ile Ala Gly Met Ala Val Ile Val Asp Lys Pro Trp Phe Tyr Asp  
                   35                  40                  45

Met Lys Lys Val Trp Glu Gly Tyr Pro Ile Gln Ser Thr Ile Pro Ser  
                   50                  55                  60

Gln Tyr Trp Tyr Tyr Met Ile Glu Leu Ser Phe Tyr Trp Ser Leu Leu  
   65                  70                  75                  80

Phe Ser Ile Ala Ser Asp Val Lys Arg Lys Asp Phe Lys Glu Gln Ile  
                   85                  90                  95

Ile His His Val Ala Thr Ile Ile Leu Ile Ser Phe Ser Trp Phe Ala  
                   100                  105                  110

Asn Tyr Ile Arg Ala Gly Thr Leu Ile Met Ala Leu His Asp Ser Ser  
                   115                  120                  125

Asp Tyr Leu Leu Glu Ser Ala Lys Met Phe Asn Tyr Ala Gly Trp Lys  
                   130                  135                  140

Asn Thr Cys Asn Asn Ile Phe Ile Val Phe Ala Ile Val Phe Ile Ile

1274

145                      150                      155                      160  
 Thr Arg Leu Val Ile Leu Pro Phe Trp Ile Leu His Cys Thr Leu Val  
                                  165                      170                      175  
 Tyr Pro Leu Glu Leu Tyr Pro Ala Phe Phe Gly Tyr Tyr Phe Phe Asn  
                                  180                      185                      190  
 Ser Met Met Gly Val Leu Gln Leu Leu His Ile Phe Trp Ala Tyr Leu  
                                  195                      200                      205  
 Ile Leu Arg Met Ala His Lys Phe Ile Thr Gly Lys Leu Val Glu Asp  
                                  210                      215                      220  
 Glu Arg Ser Asp Arg Glu Glu Thr Glu Ser Ser Glu Gly Glu Glu Ala  
 225                                   230                                   235                                   240  
 Ala Ala Gly Gly Gly Ala Lys Ser Arg Pro Leu Ala Asn Gly His Pro  
                                  245                                   250                                   255  
 Ile Leu Asn Asn Asn His Arg Lys Asn Asp  
                                  260                                   265

&lt;210&gt; 1252

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1252

Lys Met Gly Thr Asn Lys Cys Ala Ser Gln Ala Gly Met Thr Ala Tyr  
   1                                      5                                      10                                      15  
 Gly Thr Arg Arg His Leu Tyr Asp Pro Lys Met Gln Thr Asp Lys Pro  
                                  20                                      25                                      30  
 Phe Asp Gln Thr Thr Ile Ser Leu Gln Met Gly Thr Asn Lys Gly Ala  
                                  35                                      40                                      45  
 Ser Gln Ala Gly Met Leu Ala Pro Gly Thr Arg Arg Asp Ile Tyr Asp  
                                  50                                      55                                      60  
 Gln Lys Leu Thr Leu Gln Pro Val Asp Asn Ser Thr Ile Ser Leu Gln  
   65                                      70                                      75                                      80  
 Met Gly Thr Asn Lys Val Ala Ser Gln Lys Gly Met Ser Val Tyr Gly  
                                  85                                      90                                      95  
 Leu Gly Arg Gln Val Tyr Asp Pro Lys Tyr Cys Ala Ala Pro Thr Glu  
                                  100                                      105                                      110

1275

Pro Val Ile His Asn Gly Ser Gln Gly Thr Gly Thr Asn Gly Ser Glu  
 115 120 125

Ile Ser Asp Ser Asp Tyr Gln Ala Glu Tyr Pro Asp Glu Tyr His Gly  
 130 135 140

Glu Tyr Gln Asp Asp Tyr Pro Arg Asp Tyr Gln Tyr Ser Asp Gln Gly  
 145 150 155 160

Ile Asp Tyr

<210> 1253

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1253

Leu Glu Glu Thr Pro Cys Leu Arg Thr Ala Val Ala Cys Glu Gln Arg  
 1 5 10 15

Asp Pro Gly Thr Glu Ser Gln Pro Arg Arg Cys Cys Arg Arg Arg Arg  
 20 25 30

Pro Glu Thr Ala Glu Pro Val Arg Pro Pro Pro Pro Thr Pro Asp  
 35 40 45

Thr Glu His Pro Val Met Asp Lys Asn Glu Leu Val Gln Lys Ala Lys  
 50 55 60

Leu Ala Glu Gln Ala Glu Arg Tyr Asp Asp Met Ala Ala Cys Met Lys  
 65 70 75 80

Ser Val Thr Glu Gln Gly Ala Glu Leu Ser Asn Glu Glu Arg Asn Leu  
 85 90 95

Leu Ser Val Ala Tyr Lys Asn Val Val Gly Ala Arg Xaa Ser Ser Trp  
 100 105 110

Arg Val Val Ser Ser Ile Glu Gln Lys Thr Glu Gly Ala Glu Lys Lys  
 115 120 125

Gln Gln Met Ala Arg Glu Tyr Arg Glu Lys Ile Glu Thr Glu Leu Arg

1276

130	135	140
Asp Ile Cys Asn Asp Val Leu Ser Leu Leu Glu Lys Phe Leu Ile Pro		
145	150	155 160
Asn Ala Ser Gln Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly		
	165	170 175
Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp Asp Lys Lys		
	180	185 190
Gly Ile Val Asp Gln Ser Gln Gln Ala Tyr Gln Glu Ala Phe Glu Ile		
	195	200 205
Ser Lys Lys Glu Met Gln Pro Thr His Pro Ile Arg Leu Gly Leu Ala		
	210	215 220
Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu Lys		
	225	230 235 240
Ala Cys Ser Leu Ala Lys Thr Ala Phe Asp Glu Ala Ile Ala Glu Leu		
	245	250 255
Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln		
	260	265 270
Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Thr Gln Gly Asp		
	275	280 285
Glu Ala Glu Ala Gly Glu Gly Gly Glu Asn		
	290	295

&lt;210&gt; 1254

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1254

Ser Pro Ala Arg Pro Leu Ile Arg Ser Asp Lys Met Lys Glu Thr Ile
1 5 10 15
Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly
20 25 30
Gly Lys Gly Thr Ala Arg Arg Lys Lys Lys Val Val His Arg Thr Ala
35 40 45
Thr Ala Asp Asp Lys Lys Leu Gln Phe Ser Leu Lys Lys Leu Gly Val
50 55 60



1277

Asn Asn Ile Ser Gly Ile Glu Glu Val Asn Met Phe Thr Asn Gln Gly  
 65 70 75 80  
 Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ala Ala  
 85 90 95  
 Asn Thr Phe Thr Ile Thr Gly His Ala Glu Thr Lys Gln Leu Thr Glu  
 100 105 110  
 Met Leu Pro Ser Ile Leu Asn Gln Leu Gly Ala Asp Ser Leu Thr Ser  
 115 120 125  
 Leu Arg Arg Leu Ala Glu Ala Leu Pro Lys Gln Ser Val Asp Gly Lys  
 130 135 140  
 Ala Pro Leu Ala Thr Gly Glu Asp Asp Asp Asp Glu Val Pro Asp Leu  
 145 150 155 160  
 Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn  
 165 170

&lt;210&gt; 1255

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1255

Leu Cys Cys Pro Phe His Ile Lys Glu Leu Leu Thr Thr Lys Ala Ala  
 1 5 10 15  
 Pro Ala Phe Pro Ile Cys Leu Ser Ile Trp Leu Ala Gly Lys Glu Arg  
 20 25 30  
 Thr Cys Met Leu Val Lys Glu Glu Val Gly Trp Lys Lys Trp Gly Gly  
 35 40 45  
 Thr Thr Val Lys Ser Arg Val Lys Pro Ser Trp Pro Lys Val Ser Cys  
 50 55 60

Arg Leu  
 65

&lt;210&gt; 1256

&lt;211&gt; 389

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1278

&lt;400&gt; 1256

Ala Glu Ala Gly Pro Gly Ala Arg Ala Ala Ala Met Ala Ile Lys  
 1 5 10 15  
 Phe Leu Glu Val Ile Lys Pro Phe Cys Val Ile Leu Pro Glu Ile Gln  
 20 25 30  
 Lys Pro Glu Arg Lys Ile Gln Phe Lys Glu Lys Val Leu Trp Thr Ala  
 35 40 45  
 Ile Thr Leu Phe Ile Phe Leu Val Cys Cys Gln Ile Pro Leu Phe Gly  
 50 55 60  
 Ile Met Ser Ser Asp Ser Ala Asp Pro Phe Tyr Trp Met Arg Val Ile  
 65 70 75 80  
 Leu Ala Ser Asn Arg Gly Thr Leu Met Glu Leu Gly Ile Ser Pro Ile  
 85 90 95  
 Val Thr Ser Gly Leu Ile Met Gln Leu Leu Ala Gly Ala Lys Ile Ile  
 100 105 110  
 Glu Val Gly Asp Thr Pro Lys Asp Arg Ala Leu Phe Asn Gly Ala Gln  
 115 120 125  
 Lys Leu Phe Gly Met Ile Ile Thr Ile Gly Gln Ser Ile Val Tyr Val  
 130 135 140  
 Met Thr Gly Met Tyr Gly Asp Pro Ser Glu Met Gly Ala Gly Ile Cys  
 145 150 155 160  
 Leu Leu Ile Thr Ile Gln Leu Phe Val Ala Gly Leu Ile Val Leu Leu  
 165 170 175  
 Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly Ser Gly Ile Ser  
 180 185 190  
 Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val Trp Lys Ala Phe  
 195 200 205  
 Ser Pro Thr Thr Val Asn Thr Gly Arg Gly Met Glu Phe Glu Gly Ala  
 210 215 220  
 Ile Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr Asp Lys Val Arg  
 225 230 235 240  
 Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro Asn Leu Met Asn  
 245 250 255  
 Leu Ile Ala Thr Ile Phe Val Phe Ala Val Val Ile Tyr Phe Gln Gly

1279

260					265					270						
Phe	Arg	Val	Asp	Leu	Pro	Ile	Lys	Ser	Ala	Arg	Tyr	Arg	Gly	Gln	Tyr	
275					280					285						
Asn	Thr	Tyr	Pro	Ile	Lys	Leu	Phe	Tyr	Thr	Ser	Asn	Ile	Pro	Ile	Ile	
290					295					300						
Leu	Gln	Ser	Ala	Leu	Val	Ser	Asn	Leu	Tyr	Val	Ile	Ser	Gln	Met	Leu	
305					310					315					320	
Ser	Ala	Arg	Phe	Ser	Gly	Asn	Leu	Leu	Val	Ser	Leu	Leu	Gly	Thr	Trp	
325					330					335						
Ser	Asp	Thr	Ser	Ser	Gly	Gly	Pro	Ala	Arg	Ala	Tyr	Pro	Val	Gly	Gly	
340					345					350						
Leu	Cys	Tyr	Tyr	Leu	Ser	Pro	Pro	Trp	Ser	Met	Asn	Ser	Thr	Gly	Thr	
355					360					365						
Ser	Pro	Gln	Pro	Arg	Pro	Leu	Val	Gly	Cys	Ala	Ser	Gly	Pro	Ser	Arg	
370					375					380						
Ser	Trp	Leu	Thr	Ser												
385																

<210> 1257

<211> 191

<212> PRT

<213> Homo sapiens

**<220>**

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1257

Gly	Xaa	Pro	Ser	Ser	Ser	Arg	Ala	His	Ser	Pro	Met	Ile	Ala	Val	Gly
1				5					10					15	
Ser	Asp	Asp	Ser	Ser	Pro	Asn	Ala	Met	Ala	Lys	Val	Gln	Ile	Phe	Glu
			20					25					30		
Tyr	Asn	Glu	Asn	Thr	Arg	Lys	Tyr	Ala	Lys	Ala	Glu	Thr	Leu	Met	Thr
		35					40					45			
Val	Thr	Asp	Pro	Val	His	Asp	Ile	Ala	Phe	Ala	Pro	Asn	Leu	Gly	Arg
	50					55					60				

1280

Ser Phe His Ile Leu Ala Ile Ala Thr Lys Asp Val Arg Ile Phe Thr  
 65 70 75 80  
 Leu Lys Pro Val Arg Lys Glu Leu Thr Ser Ser Gly Gly Pro Thr Lys  
 85 90 95  
 Phe Glu Ile His Ile Val Ala Gln Phe Asp Asn His Asn Ser Gln Val  
 100 105 110  
 Trp Arg Val Ser Trp Asn Ile Thr Gly Thr Val Leu Ala Ser Ser Gly  
 115 120 125  
 Asp Asp Gly Cys Val Arg Leu Trp Lys Ala Asn Tyr Met Asp Asn Trp  
 130 135 140  
 Lys Cys Thr Gly Ile Leu Lys Gly Asn Gly Ser Pro Val Asn Gly Ser  
 145 150 155 160  
 Ser Gln Gln Gly Thr Ser Asn Pro Ser Leu Gly Ser Asn Ile Pro Ser  
 165 170 175  
 Leu Gln Asn Ser Leu Asn Gly Ser Ser Ala Gly Arg Lys His Ser  
 180 185 190

&lt;210&gt; 1258

&lt;211&gt; 458

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1258

Pro Gly Ala Arg His Gly Ser Ala Ser Ala Pro Thr Leu Phe Pro Leu  
 1 5 10 15  
 Val Ser Cys Glu Asn Ser Pro Ser Asp Thr Ser Ser Val Ala Val Gly  
 20 25 30  
 Cys Leu Ala Gln Asp Phe Leu Pro Asp Ser Ile Thr Phe Ser Trp Lys  
 35 40 45  
 Tyr Lys Asn Asn Ser Asp Ile Ser Ser Thr Arg Gly Phe Pro Ser Val  
 50 55 60  
 Leu Arg Gly Gly Lys Tyr Ala Ala Thr Ser Gln Val Leu Leu Pro Ser  
 65 70 75 80  
 Lys Asp Val Met Gln Gly Thr Asp Glu His Val Val Cys Lys Val Gln  
 85 90 95  
 His Pro Asn Gly Asn Lys Glu Lys Asn Val Pro Leu Pro Val Ile Ala

1281

100	105	110
Glu Leu Pro Pro Lys Val Ser Val Phe Val Pro Pro Arg Asp Gly Phe		
115	120	125
Phe Gly Asn Pro Arg Lys Ser Lys Leu Ile Cys Gln Ala Thr Gly Phe		
130	135	140
Ser Pro Arg Gln Ile Gln Val Ser Trp Leu Arg Glu Gly Lys Gln Val		
145	150	155
Gly Ser Gly Val Thr Thr Asp Gln Val Gln Ala Glu Ala Lys Glu Ser		
165	170	175
Gly Pro Thr Thr Tyr Lys Val Thr Ser Thr Leu Thr Ile Lys Glu Ser		
180	185	190
Asp Trp Leu Ser Gln Ser Met Phe Thr Cys Arg Val Asp His Arg Gly		
195	200	205
Leu Thr Phe Gln Gln Asn Ala Ser Ser Met Cys Val Pro Asp Gln Asp		
210	215	220
Thr Ala Ile Arg Val Phe Ala Ile Pro Pro Ser Phe Ala Ser Ile Phe		
225	230	235
Leu Thr Lys Ser Thr Lys Leu Thr Cys Leu Val Thr Asp Leu Thr Thr		
245	250	255
Tyr Asp Ser Val Thr Ile Ser Trp Thr Arg Gln Asn Gly Glu Ala Val		
260	265	270
Lys Thr His Thr Asn Ile Ser Glu Ser His Pro Asn Ala Thr Phe Ser		
275	280	285
Ala Val Gly Glu Ala Ser Ile Cys Glu Asp Asp Trp Asn Ser Gly Glu		
290	295	300
Arg Phe Thr Cys Thr Val Thr His Thr Asp Leu Pro Ser Pro Leu Lys		
305	310	315
Gln Thr Ile Ser Arg Pro Lys Gly Val Ala Leu His Arg Pro Asp Val		
325	330	335
Tyr Leu Leu Pro Pro Ala Arg Glu Gln Leu Asn Leu Arg Glu Ser Ala		
340	345	350
Thr Ile Thr Cys Leu Val Thr Gly Phe Ser Pro Ala Asp Val Phe Val		
355	360	365
Gln Trp Met Gln Arg Gly Gln Pro Leu Ser Pro Glu Lys Tyr Val Thr		

1282

370                      375                      380  
 Ser Ala Pro Met Pro Glu Pro Gln Ala Pro Gly Arg Tyr Phe Ala His  
 385                      390                      395                      400  
 Ser Ile Leu Thr Val Ser Glu Glu Glu Trp Asn Thr Gly Glu Thr Tyr  
                     405                      410                      415  
 Thr Cys Val Val Ala His Glu Ala Leu Pro Asn Arg Val Thr Glu Arg  
                     420                      425                      430  
 Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser Leu  
                     435                      440                      445  
 Val Met Ser Asp Thr Ala Gly Thr Cys Tyr  
                     450                      455

&lt;210&gt; 1259

&lt;211&gt; 247

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1259

Ala Gly Pro Ala Pro Glu Glu Pro Arg Gly Gly Ala Ala Ala Arg Trp  
   1                      5                      10                      15  
 Asp Cys Gln Pro Cys Gln Ala Ala Xaa Val Val Glu Asn Ser Ala Gln  
                     20                      25                      30  
 Arg Val Ile His Leu Ala Gly Gln Trp Glu Lys His Arg Val Pro Leu  
                     35                      40                      45  
 Leu Ala Glu Tyr Arg His Leu Arg Lys Leu Gln Asp Cys Arg Glu Leu  
                     50                      55                      60  
 Glu Ser Ser Arg Arg Leu Ala Glu Ile Gln Glu Leu His Gln Ser Val  
   65                      70                      75                      80  
 Arg Ala Ala Ala Glu Glu Ala Arg Arg Lys Glu Glu Val Tyr Lys Gln  
                     85                      90                      95  
 Leu Met Ser Glu Leu Glu Thr Leu Pro Arg Asp Val Ser Arg Leu Ala  
                     100                      105                      110

1283

Tyr Thr Gln Arg Ile Leu Glu Ile Val Gly Asn Ile Arg Lys Gln Lys  
 115 120 125  
 Glu Glu Ile Thr Lys Ile Leu Ser Asp Thr Lys Glu Leu Gln Lys Glu  
 130 135 140  
 Ile Asn Ser Leu Ser Gly Lys Leu Asp Arg Thr Phe Ala Val Thr Asp  
 145 150 155 160  
 Glu Leu Val Phe Lys Asp Ala Lys Lys Asp Asp Ala Val Arg Lys Ala  
 165 170 175  
 Tyr Lys Tyr Leu Ala Ala Leu His Glu Asn Cys Ser Gln Leu Ile Gln  
 180 185 190  
 Thr Ile Glu Asp Thr Gly Thr Ile Met Arg Glu Val Arg Asp Leu Glu  
 195 200 205  
 Glu Gln Ile Glu Thr Glu Leu Gly Lys Lys Thr Leu Ser Asn Leu Glu  
 210 215 220  
 Lys Ile Arg Glu Asp Tyr Arg Ala Leu Arg Gln Glu Asn Ala Gly Leu  
 225 230 235 240  
 Leu Gly Arg Val Arg Glu Ala  
 245

<210> 1260  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 1260  
 Val Gly Ile Lys Trp Ile Glu Glu Ala Val Leu Cys Ala Asn Val Ser  
 1 5 10 15  
 Phe Ala Ser Asp Arg Tyr Leu Phe Val Ile Arg Arg Val Ala Ser Phe  
 20 25 30  
 His Leu Gly Ala Glu Asn Ser Arg Gln Leu Leu Thr Asp Lys Phe Asn  
 35 40 45  
 Leu His Leu Gln Tyr Cys Met Leu Gly Ile Ser Ala Tyr Phe  
 50 55 60

<210> 1261  
 <211> 243

1284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (210)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (226)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1261

Gln	Glu	Arg	Pro	Gly	Asn	Phe	Tyr	Val	Ser	Ser	Glu	Ser	Ile	Arg	Lys
1				5				10						15	

Gly	Pro	Pro	Val	Arg	Pro	Trp	Arg	Asp	Arg	Pro	Gln	Ser	Ser	Ile	Tyr
			20				25						30		

Asp	Pro	Phe	Ala	Gly	Met	Lys	Thr	Pro	Gly	Gln	Arg	Gln	Leu	Ile	Thr
		35					40					45			

Leu	Gln	Glu	Gln	Val	Lys	Leu	Gly	Ile	Val	Asn	Val	Asp	Glu	Ala	Val
	50					55						60			

Leu	His	Phe	Lys	Glu	Trp	Gln	Leu	Asn	Gln	Lys	Xaa	Arg	Ser	Glu	Ser
65					70					75				80	

Phe	Arg	Phe	Gln	Gln	Glu	Asn	Leu	Lys	Arg	Leu	Arg	Asp	Ser	Ile	Thr
			85					90						95	

Arg	Arg	Gln	Arg	Glu	Lys	Gln	Lys	Ser	Gly	Lys	Gln	Thr	Asp	Leu	Glu
			100					105						110	

Ile	Thr	Val	Pro	Ile	Arg	His	Ser	Gln	His	Leu	Pro	Ala	Lys	Val	Glu
		115					120					125			

Phe	Gly	Val	Tyr	Glu	Ser	Gly	Pro	Arg	Lys	Ser	Val	Ile	Pro	Pro	Arg
	130					135					140				

Thr	Glu	Leu	Arg	Arg	Gly	Asp	Trp	Lys	Thr	Asp	Ser	Thr	Ser	Ser	Thr
145					150					155					160

Ala	Ser	Ser	Thr	Ser	Asn	Arg	Ser	Ser	Thr	Arg	Ser	Leu	Leu	Ser	Val
				165					170					175	



1285

Ser Ser Gly Met Glu Gly Asp Asn Glu Asp Asn Glu Val Pro Glu Val  
                   180                                  185                                  190  
 Thr Arg Ser Arg Ser Pro Gly Pro Pro Gln Val Asp Gly Thr Pro Thr  
                   195                                  200                                  205  
 Met Xaa Leu Glu Arg Pro Pro Arg Val Pro Pro Arg Ala Ala Ser Gln  
                   210                                  215                                  220  
 Arg Xaa Pro Thr Arg Glu Thr Phe His Pro Pro Pro Pro Val Pro Pro  
                   225                                  230                                  235                                  240  
 Arg Gly Arg

<210> 1262  
 <211> 75  
 <212> PRT  
 <213> Homo sapiens

<400> 1262  
 Lys Tyr Val Arg Asn Asp Gln Asn Lys Arg Lys Phe Leu Phe Ser Cys  
           1                                  5                                  10                                  15  
 Lys Tyr Phe Ser Ser Val Ile Thr Leu Lys Tyr Lys Leu Lys Tyr Asn  
                   20                                  25                                  30  
 Thr Pro Glu Cys Leu Arg His Asp Leu Asp Phe Lys Cys Val Val Phe  
                   35                                  40                                  45  
 Ile Glu Lys Lys Leu Ser Thr His Leu Val Phe Gln Glu Asn Leu Lys  
                   50                                  55                                  60  
 Arg Ser Gln Gly Lys Met Ile Cys Met Leu Lys  
           65                                  70                                  75

<210> 1263  
 <211> 475  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (249)  
 <223> Xaa equals any of the naturally occurring L-amino acids

1286

&lt;400&gt; 1263

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Arg Thr Gly Leu Gly Arg Asp Val Gly Ala Gly Ala Arg Arg Ala Ala
 1           5           10           15

Arg Cys Arg Ala Glu Ala Ala Ala Val Gly Thr Ala Arg Ser Pro
      20           25           30

Ala Leu Gly Met Ala Leu Leu Val Leu Gly Leu Val Ser Cys Thr Phe
      35           40           45

Phe Leu Ala Val Asn Gly Leu Tyr Ser Ser Ser Asp Asp Val Ile Glu
      50           55           60

Leu Thr Pro Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp Ser Leu
      65           70           75           80

Trp Leu Val Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln Arg Leu
      85           90           95

Thr Pro Glu Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val Val Lys
      100          105          110

Val Gly Ala Val Asp Ala Asp Lys His His Ser Leu Gly Gly Gln Tyr
      115          120          125

Gly Val Gln Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn Lys Asn
      130          135          140

Arg Pro Glu Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile Val Asp
      145          150          155          160

Ala Ala Leu Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu Gly Gly
      165          170          175

Arg Ser Gly Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp Ser Ser
      180          185          190

Ser Lys Lys Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp Lys Asn
      195          200          205

Val Leu Asp Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala Pro Trp
      210          215          220

Cys Gly His Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala Ala Ser
      225          230          235          240

Glu Val Lys Glu Gln Thr Lys Gly Xaa Val Lys Leu Ala Ala Val Asp
      245          250          255

Ala Thr Val Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg Gly Phe
      260          265          270

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1287

Pro Thr Ile Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp Tyr Asp  
 275 280 285  
 Gly Gly Arg Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp Leu Phe  
 290 295 300  
 Ser Asp Asn Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn Glu Asp  
 305 310 315 320  
 Ile Ala Lys Arg Thr Cys Glu Glu His Gln Leu Cys Val Val Ala Val  
 325 330 335  
 Leu Pro His Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser Tyr Leu  
 340 345 350  
 Glu Val Leu Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met Trp Gly  
 355 360 365  
 Trp Leu Trp Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr Ala Leu  
 370 375 380  
 Gly Ile Gly Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn Ala Arg  
 385 390 395 400  
 Lys Met Lys Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln Gly Ile  
 405 410 415  
 Asn Glu Phe Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr Ala Pro  
 420 425 430  
 Val Gly Gly Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro Trp Asp  
 435 440 445  
 Gly Arg Asp Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu Ser Asp  
 450 455 460  
 Val Glu Leu Asp Asp Leu Gly Lys Asp Glu Leu  
 465 470 475

&lt;210&gt; 1264

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1288

&lt;400&gt; 1264

His Phe Glu Arg Thr Ser Ser Lys Arg Val Ser Arg Ser Leu Asp Gly  
 1 5 10 15

Ala Pro Ile Gly Val Met Asp Gln Ser Leu Met Xaa Asp Phe Pro Gly  
 20 25 30

Ala Ala Gly Glu Ile Ser Ala Tyr Gly Pro Gly Leu Val Ser Ile Ala  
 35 40 45

Val Val Gln Asp Gly Asp Gly Arg Arg Glu Val Arg Ser Pro Thr Lys  
 50 55 60

Ala Pro His Leu Gln Leu Ile Glu Gly Lys Ser Ser His Glu Thr Leu  
 65 70 75 80

Asn Ile Val Glu Glu Lys Lys Arg Ala Glu Val Gly Lys Asp Glu Arg  
 85 90 95

Val Ile Thr Glu Glu Met Asn Gly Lys Glu Ile Ser Pro Gly Ser Gly  
 100 105 110

Pro Gly Glu Ile Arg Lys Val Glu Pro Val Thr Gln Lys Asp Ser Thr  
 115 120 125

Ser Leu Ser Ser Glu Ser Ser Ser Ser Ser Ser Glu Ser Glu Glu Glu  
 130 135 140

Asp Val Gly Glu Tyr Arg Pro His His Arg Val Thr Glu Gly Thr Ile  
 145 150 155 160

Arg Glu Glu Gln Glu Tyr Glu Glu Glu Val Glu Glu Glu Pro Arg Pro  
 165 170 175

Ala Ala Lys Val Val Glu Arg Glu Glu Ala Val Pro Glu Ala Ser Pro  
 180 185 190

Val Thr Gln Ala Gly Ala Ser Val Ile Thr Val Glu Thr Val Ile Gln  
 195 200 205

Glu Asn Val Gly Ala Gln Lys Ile Pro Gly Glu Lys Ser Val His Glu  
 210 215 220

Gly Ala Leu Lys Gln Asp Met Gly Glu Glu Ala Glu Glu Glu Pro Gln  
 225 230 235 240

Lys Val Asn Gly Glu Val Ser His Val Asp Ile Asp Val Leu Pro Gln  
 245 250 255

Ile Ile Cys Cys Ser Glu Pro Pro Val Val Lys Thr Glu Met Val Thr

1289

260	265	270
Ile Ser Asp Ala Ser Gln Arg Thr Glu Ile Ser Thr Lys Glu Val Pro		
275	280	285
Ile Val Gln Thr Glu Thr Lys Thr Ile Thr Tyr Glu Ser Pro Gln Ile		
290	295	300
Asp Gly Gly Ala Gly Gly Asp Ser Gly Thr Leu Leu Thr Ala Gln Thr		
305	310	315 320
Ile Thr Ser Glu Ser Val Ser Thr Thr Thr Thr Thr His Ile Thr Lys		
325	330	335
Thr Val Lys Gly Gly Ile Ser Glu Thr Arg Ile Glu Lys Arg Ile Val		
340	345	350
Ile Thr Gly Asp Gly Asp Ile Asp His Asp Gln Ala Leu Ala Gln Ala		
355	360	365
Ile Arg Glu Ala Arg Glu Gln His Pro Asp Met Ser Val Thr Arg Val		
370	375	380
Val Val His Lys Glu Thr Glu Leu Ala Glu Glu Gly Glu Asp		
385	390	395

&lt;210&gt; 1265

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1265

Trp Thr Gly Thr Gly Arg Gly Ala Val Ala Ile Met Ala Asp Pro Asp		
1	5	10 15
Pro Arg Tyr Pro Arg Ser Ser Ile Glu Asp Asp Phe Asn Tyr Gly Ser		
20	25	30
Ser Val Ala Ser Ala Thr Val His Ile Arg Met Ala Phe Leu Arg Lys		
35	40	45
Val Tyr Ser Ile Leu Ser Leu Gln Val Leu Leu Thr Thr Val Thr Ser		
50	55	60

1290

Thr Val Phe Leu Tyr Phe Glu Ser Val Arg Thr Phe Val His Glu Ser  
 65 70 75 80  
 Pro Ala Leu Ile Leu Leu Phe Ala Leu Gly Ser Leu Gly Leu Ile Phe  
 85 90 95  
 Ala Leu Xaa Leu Asn Arg His Lys Tyr Pro Leu Asn Leu Tyr Leu Leu  
 100 105 110  
 Phe Gly Phe Thr Leu Leu Glu Ala Leu Thr Val Ala Val Val Val Thr  
 115 120 125  
 Phe Tyr Asp Val Tyr Ile Ile Leu Gln Ala Phe Ile Leu Thr Thr Thr  
 130 135 140  
 Val Phe Phe Gly Leu Thr Val Tyr Thr Leu Gln Ser Lys Lys Asp Phe  
 145 150 155 160  
 Ser Lys Phe Gly Ala Gly Leu Phe Ala Leu Leu Trp Ile Leu Cys Leu  
 165 170 175  
 Ser Gly Phe Leu Lys Phe Phe Phe Tyr Ser Glu Ile Met Glu Leu Val  
 180 185 190  
 Leu Ala Ala Ala Gly Ala Leu Leu Phe Trp Gly Ile His His Leu  
 195 200 205

&lt;210&gt; 1266

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1266

Ser Arg Asp Pro Asn Gly Trp Trp Arg Arg Leu Arg Val Ser Ala Glu  
 1 5 10 15  
 Leu Ala Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu  
 20 25 30  
 Ala Leu Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg  
 35 40 45  
 Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg  
 50 55 60  
 Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser  
 65 70 75 80  
 Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr

				85					90					95			
Leu	Thr	Lys	Glu	Glu	Cys	Leu	Lys	Lys	Cys	Ala	Thr	Val	Thr	Glu	Asn		
			100					105					110				
Ala	Thr	Gly	Asp	Leu	Ala	Thr	Ser	Arg	Asn	Ala	Ala	Asp	Ser	Ser	Val		
		115					120					125					
Pro	Ser	Ala	Pro	Arg	Arg	Gln	Asp	Ser	Glu	Asp	His	Ser	Ser	Asp	Met		
		130				135					140						
Phe	Asn	Tyr	Glu	Glu	Tyr	Cys	Thr	Ala	Asn	Ala	Val	Thr	Gly	Pro	Cys		
145					150					155					160		
Arg	Ala	Ser	Phe	Pro	Arg	Trp	Tyr	Phe	Asp	Val	Glu	Arg	Asn	Ser	Cys		
			165						170					175			
Asn	Asn	Phe	Ile	Tyr	Gly	Gly	Cys	Arg	Gly	Asn	Lys	Asn	Ser	Tyr	Arg		
		180						185					190				
Ser	Glu	Glu	Ala	Cys	Met	Leu	Arg	Cys	Phe	Arg	Gln	Gln	Glu	Asn	Pro		
		195					200					205					
Pro	Leu	Pro	Leu	Gly	Ser	Lys	Val	Val	Val	Leu	Ala	Gly	Leu	Phe	Val		
		210				215					220						
Met	Val	Leu	Ile	Leu	Phe	Leu	Gly	Ala	Ser	Met	Val	Tyr	Leu	Ile	Arg		
225					230					235					240		
Val	Ala	Arg	Arg	Asn	Gln	Glu	Arg	Ala	Leu	Arg	Thr	Val	Trp	Ser	Ser		
			245						250					255			
Gly	Asp	Asp	Lys	Glu	Gln	Leu	Val	Lys	Asn	Thr	Tyr	Val	Leu	Cys	Arg		
		260						265					270				
Pro	Val	Ala	Lys	Arg	Thr	Gly	Glu	Gly	Arg	Gly	Asp	Met	Cys	Asp	Phe		
		275				280						285					

Phe

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<210> 1267
<211> 284
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (5)
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1292

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1267

Arg	Gly	Arg	Arg	Xaa	Xaa	Ala	Ser	Leu	Arg	Gly	Trp	Pro	Val	Arg	Arg
1				5					10					15	

Gly	Met	Gly	Arg	Val	Gln	Leu	Phe	Glu	Ile	Ser	Leu	Ser	His	Gly	Arg
			20					25					30		

Val	Val	Tyr	Ser	Pro	Gly	Glu	Pro	Leu	Ala	Gly	Thr	Val	Arg	Val	Arg
		35					40					45			

Leu	Gly	Ala	Pro	Leu	Pro	Phe	Arg	Ala	Ile	Arg	Val	Thr	Cys	Ile	Gly
50						55					60				

Ser	Cys	Gly	Val	Ser	Asn	Lys	Ala	Asn	Asp	Thr	Ala	Trp	Val	Val	Glu
65					70					75					80

Glu	Gly	Tyr	Phe	Asn	Ser	Ser	Leu	Ser	Leu	Ala	Asp	Lys	Gly	Ser	Leu
				85					90					95	

Pro	Ala	Gly	Glu	His	Ser	Phe	Pro	Phe	Gln	Phe	Leu	Leu	Pro	Ala	Thr
			100					105					110		

Ala	Pro	Thr	Ser	Phe	Glu	Gly	Pro	Phe	Gly	Lys	Ile	Val	His	Gln	Val
		115					120					125			

Arg	Ala	Ala	Ile	His	Thr	Pro	Arg	Phe	Ser	Lys	Asp	His	Lys	Cys	Ser
	130					135					140				

Leu	Val	Phe	Tyr	Ile	Leu	Ser	Pro	Leu	Asn	Leu	Asn	Ser	Ile	Pro	Asp
145					150				155						160

Ile	Glu	Gln	Pro	Asn	Val	Ala	Ser	Ala	Thr	Lys	Lys	Phe	Ser	Tyr	Lys
			165						170					175	

Leu	Val	Lys	Thr	Gly	Ser	Val	Val	Leu	Thr	Ala	Ser	Thr	Asp	Leu	Arg
		180						185					190		

Gly	Tyr	Val	Val	Gly	Gln	Ala	Leu	Gln	Leu	His	Ala	Asp	Val	Glu	Asn
		195					200					205			

Gln	Ser	Gly	Lys	Asp	Thr	Ser	Pro	Val	Val	Ala	Ser	Leu	Leu	Gln	Lys
	210					215				220					

Val	Ser	Tyr	Lys	Ala	Lys	Arg	Trp	Ile	His	Asp	Val	Arg	Thr	Ile	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



1293

225                      230                      235                      240  
 Glu Val Glu Gly Ala Gly Val Lys Ala Trp Arg Arg Ala Gln Trp His  
                                  245                      250                      255  
 Glu Gln Ile Leu Val Pro Ala Leu Pro Gln Ser Ala Leu Pro Ala Ala  
                                  260                      265                      270  
 Ala Ser Ser Thr Ser Thr Thr Thr Tyr Arg Ser Leu  
                                  275                      280

&lt;210&gt; 1268

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1268

Val Trp Leu Arg Val Glu Asn Val Cys Gln Gly Pro Gly Gln Glu Gly  
   1                                  5                                  10                                  15  
 Gly Pro Pro Val Thr Met Val Ser Met Ser Phe Lys Arg Asn Arg Ser  
                                   20                                  25                                  30  
 Asp Arg Phe Tyr Ser Thr Arg Cys Cys Gly Cys Cys His Val Arg Thr  
                                   35                                  40                                  45  
 Gly Thr Ile Ile Leu Gly Thr Trp Tyr Met Val Val Asn Leu Leu Met  
   50                                  55                                  60  
 Ala Ile Leu Leu Thr Val Glu Val Thr His Pro Asn Ser Met Pro Ala  
   65                                  70                                  75                                  80  
 Val Asn Ile Gln Tyr Glu Val Ile Gly Asn Tyr Tyr Ser Ser Glu Arg  
                                   85                                  90                                  95  
 Met Ala Asp Asn Ala Cys Val Leu Phe Ala Val Ser Val Leu Met Phe  
                                   100                                  105                                  110  
 Ile Ile Ser Ser Met Leu Val Tyr Gly Ala Ile Ser Tyr Gln Val Gly  
                                   115                                  120                                  125  
 Trp Leu Ile Pro Phe Phe Cys Tyr Arg Leu Phe Asp Phe Val Leu Ser  
                                   130                                  135                                  140  
 Cys Leu Val Ala Ile Ser Ser Leu Thr Tyr Leu Pro Arg Ile Lys Glu  
   145                                  150                                  155                                  160  
 Tyr Leu Asp Gln Leu Pro Asp Phe Pro Tyr Lys Asp Asp Leu Leu Ala  
                                   165                                  170                                  175

1294

Leu Asp Ser Ser Cys Leu Leu Phe Ile Val Leu Val Phe Phe Ala Leu  
                   180                  185                  190  
 Phe Ile Ile Phe Lys Ala Tyr Leu Ile Asn Cys Val Trp Asn Cys Tyr  
                   195                  200                  205  
 Lys Tyr Ile Asn Asn Arg Asn Val Pro Glu Ile Ala Val Tyr Pro Ala  
                   210                  215                  220  
 Phe Glu Ala Pro Pro Gln Tyr Val Leu Pro Thr Tyr Glu Met Ala Val  
                   225                  230                  235                  240  
 Lys Met Pro Glu Lys Glu Pro Pro Pro Pro Tyr Leu Pro Ala  
                   245                  250

&lt;210&gt; 1269

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1269

Lys Ser Ile Leu Val Ile Arg Val Tyr Phe Phe Tyr Arg Thr Arg Trp  
           1                  5                  10                  15

Xaa Gly Gly Glu Pro Phe Thr Leu Leu Val Lys Leu Asn His Arg Lys  
           20                  25                  30

Phe Thr Ile Cys Leu Ser Gln Thr Leu Ala Val Arg Gly Met Val Ala

1295

35 40 45  
Xaa Ala Cys Xaa Xaa Pro Ala Cys Trp Gly Gly Pro Ser Trp Gly Gly  
50 55 60  
Leu Pro Glu  
65

<210> 1270  
<211> 164  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (6)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (138)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (152)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (161)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (164)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1270

1296

Gly Ser Pro Gly Thr Xaa Arg Ile Pro Xaa Thr Arg Xaa Glu Thr Cys  
 1 5 10 15  
 Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr Glu  
 20 25 30  
 Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala Gly  
 35 40 45  
 Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly Gly  
 50 55 60  
 Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr Gly  
 65 70 75 80  
 Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu Trp  
 85 90 95  
 Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly Thr  
 100 105 110  
 Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp Met  
 115 120 125  
 Met Val Asp Cys Thr Cys Leu Gly Glu Xaa Ser Gly Arg Ile Thr Cys  
 130 135 140  
 Thr Ser Arg Asn Arg Cys Asn Xaa Gln Asp Thr Arg Thr Ser Ile Glu  
 145 150 155 160  
 Xaa Glu Thr Xaa

&lt;210&gt; 1271

&lt;211&gt; 363

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1271

Ala Arg Gly Ser Glu Cys Gly Gln Arg Ala Glu Ala Val Ser His Arg  
 1 5 10 15  
 Arg Arg Arg Arg Ala Gln Ala Ser Ser Phe Gly Trp Gly Ala Ala Glu  
 20 25 30  
 Leu Thr Ser Asp Ile Ser Ala Pro Phe Thr Arg Arg Asn Pro Gly Ala  
 35 40 45  
 Gly Ala Arg Ser Ala Gly Val Thr Met Thr Lys Ala Gly Ser Lys Gly

1297

50	55	60
Gly Asn Leu Arg Asp Lys Leu Asp Gly Asn Glu Leu Asp Leu Ser Leu		
65	70	75 80
Ser Asp Leu Asn Glu Val Pro Val Lys Glu Leu Ala Ala Leu Pro Lys		
	85	90 95
Ala Thr Ile Leu Asp Leu Ser Cys Asn Lys Leu Thr Thr Leu Pro Ser		
	100	105 110
Asp Phe Cys Gly Leu Thr His Leu Val Lys Leu Asp Leu Ser Lys Asn		
	115	120 125
Lys Leu Gln Gln Leu Pro Ala Asp Phe Gly Arg Leu Val Asn Leu Gln		
	130	135 140
His Leu Asp Leu Leu Asn Asn Lys Leu Val Thr Leu Pro Val Ser Phe		
	145	150 155 160
Ala Gln Leu Lys Asn Leu Lys Trp Leu Asp Leu Lys Asp Asn Pro Leu		
	165	170 175
Asp Pro Val Leu Ala Lys Val Ala Gly Asp Cys Leu Asp Glu Lys Gln		
	180	185 190
Cys Lys Gln Cys Ala Asn Lys Val Leu Gln His Met Lys Ala Val Gln		
	195	200 205
Ala Asp Gln Glu Arg Glu Arg Gln Arg Arg Leu Glu Val Glu Arg Glu		
	210	215 220
Ala Glu Lys Lys Arg Glu Ala Lys Gln Arg Ala Lys Glu Ala Gln Glu		
	225	230 235 240
Arg Glu Leu Arg Lys Arg Glu Lys Ala Glu Glu Lys Glu Arg Arg Arg		
	245	250 255
Lys Glu Tyr Asp Ala Leu Lys Ala Ala Lys Arg Glu Gln Glu Lys Lys		
	260	265 270
Pro Lys Lys Glu Ala Asn Gln Ala Pro Lys Ser Lys Ser Gly Ser Arg		
	275	280 285
Pro Arg Lys Pro Pro Pro Arg Lys His Thr Arg Ser Trp Ala Val Leu		
	290	295 300
Lys Leu Leu Leu Leu Leu Leu Phe Gly Val Ala Gly Gly Leu Val		
	305	310 315 320
Ala Cys Arg Val Thr Glu Leu Gln Gln Gln Pro Leu Cys Thr Ser Val		

1298

```

          325              330              335
Asn Thr Ile Tyr Asp Asn Ala Val Gln Gly Leu Arg Arg His Glu Ile
          340              345              350
Leu Gln Trp Val Leu Gln Thr Asp Ser Gln Gln
          355              360

```

```
<210> 1272
<211> 144
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (116)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
<221> SITE  
<222> (124)  
<223> Xaa equals any of the naturally occurring L-amino acids
```

```

<400> 1272
Gly Leu Val Met Ala Pro Ile Ala Cys Leu Leu Pro Ala Phe Ser Ser
  1                      5                      10                      15

Ala Pro Glu Ala Met His Pro Trp Glu Leu Phe Val Lys Tyr Tyr His
      20                      25                      30

Ala Lys Asn Gly Arg Ala Tyr Val Glu Ser Pro Ala Arg Lys Leu Ser
      35                      40                      45

Gln Ser Phe Ala Leu Pro Val Thr Gly Gly Thr Val Val Thr Pro Lys
  50                      55                      60

Gln Ser Leu Leu Thr Ala Ile His Met Val Leu Thr Glu His Asp Pro
  65                      70                      75                      80

Phe Lys Arg Ser Ala Asp Ser Glu Leu Lys Ala Leu Val Cys Met Ala
      85                      90                      95

Leu Asn Glu Pro Ala Ser Gly Val Leu Gly Glu Pro His Leu Gln Xaa
  100                      105                      110

```

1299

Arg Val Thr Xaa Arg Ala Ser Leu Pro Ala Leu Xaa Leu His Gly Thr  
 115 120 125

His Arg Leu Leu Lys Ile Ala Ser Thr Cys Ser Val Ala Ser Thr Thr  
 130 135 140

&lt;210&gt; 1273

&lt;211&gt; 252

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1273

Ala Arg Ala Pro Pro Arg Pro Arg Arg Ala Gly Arg Cys Gln Leu Pro  
 1 5 10 15

Gln Arg Pro Ala Glu Ala Arg Cys Met Leu Ser Arg Cys Arg Ser Xaa  
 20 25 30

Leu Leu His Val Leu Gly Leu Ser Phe Leu Leu Gln Thr Arg Arg Pro  
 35 40 45

Ile Leu Leu Cys Ser Pro Arg Leu Met Lys Pro Leu Val Val Phe Val  
 50 55 60

Leu Gly Gly Pro Gly Ala Gly Lys Gly Thr Gln Cys Ala Arg Ile Val  
 65 70 75 80

Glu Lys Tyr Gly Tyr Thr His Leu Ser Ala Gly Glu Leu Leu Arg Asp  
 85 90 95

Glu Arg Lys Asn Pro Asp Ser Gln Tyr Gly Glu Leu Ile Glu Lys Tyr  
 100 105 110

Ile Lys Glu Gly Lys Ile Val Pro Val Glu Ile Thr Ile Ser Leu Leu  
 115 120 125

Lys Arg Glu Met Asp Gln Thr Met Ala Ala Asn Ala Gln Lys Asn Lys  
 130 135 140

Phe Leu Ile Asp Gly Phe Pro Arg Asn Gln Asp Asn Leu Gln Gly Trp

1300

```

145              150              155              160
Asn Lys Thr Met Asp Gly Lys Ala Asp Val Ser Phe Val Leu Phe Phe
      165              170              175
Asp Cys Asn Asn Glu Ile Cys Ile Glu Arg Cys Leu Glu Arg Gly Lys
      180              185              190
Ser Ser Gly Arg Ser Asp Asp Asn Arg Glu Ser Leu Glu Lys Arg Ile
      195              200              205
Gln Thr Tyr Leu Gln Ser Thr Lys Pro Ile Ile Asp Leu Tyr Glu Glu
      210              215              220
Met Gly Lys Val Lys Lys Ile Asp Ala Ser Lys Ser Val Asp Glu Val
      225              230              235              240
Phe Asp Glu Val Val Gln Ile Phe Asp Lys Glu Gly
      245              250

```

&lt;210&gt; 1274

&lt;211&gt; 425

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1274

```

Ala Ser Glu Arg Ser Glu Ala Arg Arg Lys Leu Arg Glu Cys Asp Gly
  1              5              10              15
Leu Val Asp Ala Leu Ile Phe Ile Val Gln Ala Glu Ile Gly Gln Lys
      20              25              30
Asp Ser Xaa Ser Lys Leu Val Glu Asn Cys Val Cys Leu Leu Arg Asn
      35              40              45
Leu Ser Tyr Gln Val His Arg Glu Ile Pro Gln Ala Glu Arg Tyr Gln
      50              55              60
Glu Ala Ala Pro Asn Val Ala Asn Asn Thr Gly Pro His Ala Ala Ser
      65              70              75              80
Cys Phe Gly Ala Lys Lys Gly Lys Gly Lys Lys Pro Ile Glu Asp Pro
      85              90              95

```



1301

Ala Asn Asp Thr Val Asp Phe Pro Lys Arg Thr Ser Pro Ala Arg Gly  
 100 105 110

Tyr Glu Leu Leu Phe Gln Pro Glu Val Val Arg Ile Tyr Ile Ser Leu  
 115 120 125

Leu Lys Glu Ser Lys Thr Pro Ala Ile Leu Glu Ala Ser Ala Gly Ala  
 130 135 140

Ile Gln Asn Leu Cys Ala Gly Arg Trp Thr Tyr Gly Arg Tyr Ile Arg  
 145 150 155 160

Ser Ala Leu Arg Gln Glu Lys Ala Leu Ser Ala Ile Ala Asp Leu Leu  
 165 170 175

Thr Asn Glu His Glu Arg Val Val Lys Ala Ala Ser Gly Ala Leu Arg  
 180 185 190

Asn Leu Ala Val Asp Ala Arg Asn Lys Glu Leu Ile Gly Lys His Ala  
 195 200 205

Ile Pro Asn Leu Val Lys Asn Leu Pro Gly Gly Gln Gln Asn Ser Ser  
 210 215 220

Trp Asn Phe Ser Glu Asp Thr Val Ile Ser Ile Leu Asn Thr Ile Asn  
 225 230 235 240

Glu Val Ile Ala Glu Asn Leu Glu Ala Ala Lys Lys Leu Arg Glu Thr  
 245 250 255

Gln Gly Ile Glu Lys Leu Val Leu Ile Asn Lys Ser Gly Asn Arg Ser  
 260 265 270

Glu Lys Glu Val Arg Ala Ala Ala Leu Val Leu Gln Thr Ile Trp Gly  
 275 280 285

Tyr Lys Glu Leu Arg Lys Pro Leu Glu Lys Glu Gly Trp Lys Lys Ser  
 290 295 300

Asp Phe Gln Val Asn Leu Asn Asn Ala Ser Arg Ser Gln Ser Ser His  
 305 310 315 320

Ser Tyr Asp Asp Ser Thr Leu Pro Leu Ile Asp Arg Asn Gln Lys Ser  
 325 330 335

Asp Lys Lys Pro Asp Arg Glu Glu Ile Gln Met Ser Asn Met Gly Ser  
 340 345 350

Asn Thr Lys Ser Leu Asp Asn Asn Tyr Ser Thr Pro Asn Glu Arg Gly  
 355 360 365

1302

Asp His Asn Arg Thr Leu Asp Arg Ser Gly Asp Leu Gly Asp Met Glu  
 370 375 380  
 Pro Leu Lys Gly Thr Thr Pro Leu Met Gln Asp Glu Gly Gln Glu Ser  
 385 390 395 400  
 Leu Glu Glu Glu Leu Asp Val Leu Val Leu Asp Asp Glu Gly Gly Gln  
 405 410 415  
 Val Ser Tyr Pro Ser Met Gln Lys Ile  
 420 425

&lt;210&gt; 1275

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1275

Phe Phe Phe Ser Ser Leu Phe Ser Leu Xaa Phe Leu Lys Lys Gly Lys  
 1 5 10 15

Lys Cys Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu Leu  
 20 25 30

Ser Gly Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val  
 35 40 45

Cys Thr Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Thr Leu Pro  
 50 55 60

Val Glu Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met Met  
 65 70 75 80

Phe Ile Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn Asp  
 85 90 95

Ile Phe Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala  
 100 105 110

&lt;210&gt; 1276

&lt;211&gt; 766

&lt;212&gt; PRT

1303

&lt;213&gt; Homo sapiens

&lt;400&gt; 1276

Gly	Asp	Phe	Ile	Met	Leu	Arg	Ala	Gly	Arg	Arg	Ala	Pro	Leu	Pro	Ser	1	5	10	15
Pro	Pro	Ser	Leu	Asp	Ser	Pro	Gly	Pro	Gln	Leu	Met	Pro	Ser	Pro	Arg	20	25	30	
Pro	Val	Leu	Leu	Arg	Gly	Ala	Arg	Ala	Ala	Leu	Leu	Leu	Leu	Leu	Pro	35	40	45	
Pro	Arg	Leu	Leu	Ala	Arg	Pro	Ser	Leu	Leu	Leu	Arg	Arg	Ser	Leu	Ser	50	55	60	
Ala	Ala	Ser	Cys	Ala	Pro	Ile	Ser	Leu	Pro	Ala	Ala	Ala	Ser	Arg	Ser	65	70	75	80
Ser	Met	Asp	Gly	Ala	Gly	Ala	Glu	Glu	Val	Leu	Ala	Pro	Leu	Arg	Leu	85	90	95	
Ala	Val	Arg	Gln	Gln	Gly	Asp	Leu	Val	Arg	Lys	Leu	Lys	Glu	Asp	Lys	100	105	110	
Ala	Pro	Gln	Val	Asp	Val	Asp	Lys	Ala	Val	Ala	Glu	Leu	Lys	Ala	Arg	115	120	125	
Lys	Arg	Val	Leu	Glu	Ala	Lys	Glu	Leu	Ala	Leu	Gln	Pro	Lys	Asp	Asp	130	135	140	
Ile	Val	Asp	Arg	Ala	Lys	Met	Glu	Asp	Thr	Leu	Lys	Arg	Arg	Phe	Phe	145	150	155	160
Tyr	Asp	Gln	Ala	Phe	Ala	Ile	Tyr	Gly	Gly	Val	Ser	Gly	Leu	Tyr	Asp	165	170	175	
Phe	Gly	Pro	Val	Gly	Cys	Ala	Leu	Lys	Asn	Asn	Ile	Ile	Gln	Thr	Trp	180	185	190	
Arg	Gln	His	Phe	Ile	Gln	Glu	Glu	Gln	Ile	Leu	Glu	Ile	Asp	Cys	Thr	195	200	205	
Met	Leu	Thr	Pro	Glu	Pro	Val	Leu	Lys	Thr	Ser	Gly	His	Val	Asp	Lys	210	215	220	
Phe	Ala	Asp	Phe	Met	Val	Lys	Asp	Val	Lys	Asn	Gly	Glu	Cys	Phe	Arg	225	230	235	240
Ala	Asp	His	Leu	Leu	Lys	Ala	His	Leu	Gln	Lys	Leu	Met	Ser	Asp	Lys	245	250	255	

1304

Lys Cys Ser Val Glu Lys Lys Ser Glu Met Glu Ser Val Leu Ala Gln  
 260 265 270  
 Leu Asp Asn Tyr Gly Gln Gln Glu Leu Ala Asp Leu Phe Val Asn Tyr  
 275 280 285  
 Asn Val Lys Ser Pro Ile Thr Gly Asn Asp Leu Ser Pro Pro Val Ser  
 290 295 300  
 Phe Asn Leu Met Phe Lys Thr Phe Ile Gly Pro Gly Gly Asn Met Pro  
 305 310 315 320  
 Gly Tyr Leu Arg Pro Glu Thr Ala Gln Gly Ile Phe Leu Asn Phe Lys  
 325 330 335  
 Arg Leu Leu Glu Phe Asn Gln Gly Lys Leu Pro Phe Ala Ala Ala Gln  
 340 345 350  
 Ile Gly Asn Ser Phe Arg Asn Glu Ile Ser Pro Arg Ser Gly Leu Ile  
 355 360 365  
 Arg Val Arg Glu Phe Thr Met Ala Glu Ile Glu His Phe Val Asp Pro  
 370 375 380  
 Ser Glu Lys Asp His Pro Lys Phe Gln Asn Val Ala Asp Leu His Leu  
 385 390 395 400  
 Tyr Leu Tyr Ser Ala Lys Ala Gln Val Ser Gly Gln Ser Ala Arg Lys  
 405 410 415  
 Met Arg Leu Gly Asp Ala Val Glu Gln Gly Val Ile Asn Asn Thr Val  
 420 425 430  
 Leu Gly Tyr Phe Ile Gly Arg Ile Tyr Leu Tyr Leu Thr Lys Val Gly  
 435 440 445  
 Ile Ser Pro Asp Lys Leu Arg Phe Arg Gln His Met Glu Asn Glu Met  
 450 455 460  
 Ala His Tyr Ala Cys Asp Cys Trp Asp Ala Glu Ser Lys Thr Ser Tyr  
 465 470 475 480  
 Gly Trp Ile Glu Ile Val Gly Cys Ala Asp Arg Ser Cys Tyr Asp Leu  
 485 490 495  
 Ser Cys His Ala Arg Ala Thr Lys Val Pro Leu Val Ala Glu Lys Pro  
 500 505 510  
 Leu Lys Glu Pro Lys Thr Val Asn Val Val Gln Phe Glu Pro Ser Lys  
 515 520 525

1305

Gly Ala Ile Gly Lys Ala Tyr Lys Lys Asp Ala Lys Leu Val Met Glu  
 530 535 540

Tyr Leu Ala Ile Cys Asp Glu Cys Tyr Ile Thr Glu Met Glu Met Leu  
 545 550 555 560

Leu Asn Glu Lys Gly Glu Phe Thr Ile Glu Thr Glu Gly Lys Thr Phe  
 565 570 575

Gln Leu Thr Lys Asp Met Ile Asn Val Lys Arg Phe Gln Lys Thr Leu  
 580 585 590

Tyr Val Glu Glu Val Val Pro Asn Val Ile Glu Pro Ser Phe Gly Leu  
 595 600 605

Gly Arg Ile Met Tyr Thr Val Phe Glu His Thr Phe His Val Arg Glu  
 610 615 620

Gly Asp Glu Gln Arg Thr Phe Phe Ser Phe Pro Ala Val Val Ala Pro  
 625 630 635 640

Phe Lys Cys Ser Val Leu Pro Leu Ser Gln Asn Gln Glu Phe Met Pro  
 645 650 655

Phe Val Lys Glu Leu Ser Glu Ala Leu Thr Arg His Gly Val Ser His  
 660 665 670

Lys Val Asp Asp Ser Ser Gly Ser Ile Gly Arg Arg Tyr Ala Arg Thr  
 675 680 685

Asp Glu Ile Gly Val Ala Phe Gly Val Thr Ile Asp Phe Asp Thr Val  
 690 695 700

Asn Lys Thr Pro His Thr Ala Thr Leu Arg Asp Arg Asp Ser Met Arg  
 705 710 715 720

Gln Ile Arg Ala Glu Ile Ser Glu Leu Pro Ser Ile Val Gln Asp Leu  
 725 730 735

Ala Asn Gly Asn Ile Thr Trp Ala Asp Val Glu Ala Arg Tyr Pro Leu  
 740 745 750

Phe Glu Gly Gln Glu Thr Gly Lys Lys Glu Thr Ile Glu Glu  
 755 760 765

&lt;210&gt; 1277

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1306

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1277

Leu Gly Ser Arg Gln Ala Ala Gly Thr Met Arg Gly Gln Arg Ser Leu  
 1 5 10 15

Leu Leu Gly Pro Ala Arg Leu Cys Leu Arg Leu Leu Leu Leu Gly  
 20 25 30

Tyr Arg Arg Arg Cys Pro Pro Leu Arg Gly Leu Val Gln Arg Trp  
 35 40 45

Arg Tyr Gly Lys Val Cys Leu Arg Ser Leu Leu Tyr Asn Ser Phe Gly  
 50 55 60

Gly Ser Asp Thr Ala Val Asp Ala Ala Phe Xaa Pro Val Tyr Trp Leu  
 65 70 75 80

Val Asp Asn Val Ile Arg Trp Phe Gly Val Val Phe Val Val Leu Val  
 85 90 95

Ile Val Leu Thr Gly Ser Ile Val Ala Ile Ala Tyr Leu Cys Val Leu  
 100 105 110

Pro Leu Ile Leu Arg Thr Tyr Ser Val Pro Arg Leu Cys Trp His Phe  
 115 120 125

Phe Tyr Ser His Trp Asn Leu Ile Leu Ile Val Phe His Tyr Tyr Gln  
 130 135 140

Ala Ile Thr Thr Pro Pro Gly Tyr Pro Pro Gln Gly Arg Asn Asp Ile  
 145 150 155 160

Ala Thr Val Ser Ile Cys Lys Lys Cys Ile Tyr Pro Lys Pro Ala Arg  
 165 170 175

Thr His His Cys Ser Ile Cys Asn Arg Cys Val Leu Lys Met Asp His  
 180 185 190

His Cys Pro Trp Leu Asn Asn Cys Val Gly His Tyr Asn His Arg Tyr  
 195 200 205

Phe Phe Ser Phe Cys Phe Phe Met Thr Leu Gly Cys Val Tyr Cys Ser  
 210 215 220

Tyr Gly Ser Trp Asp Leu Phe Arg Glu Ala Tyr Ala Ala Ile Glu Lys  
 225 230 235 240

1307

Met Lys Gln Leu Asp Lys Asn Lys Leu Gln Ala Val Ala Asn Gln Thr  
 245 250 255

Tyr His Gln Thr Pro Pro Pro Thr Phe Ser Phe Arg Glu Arg Met Thr  
 260 265 270

His Lys Ser Leu Val Tyr Leu Trp Phe Leu Cys Ser Ser Val Ala Leu  
 275 280 285

Ala Leu Gly Ala Leu Thr Val Trp His Ala Val Leu Ile Ser Arg Gly  
 290 295 300

Glu Thr Ser Ile Glu Arg His Ile Asn Lys Lys Glu Arg Arg Arg Leu  
 305 310 315 320

Gln Ala Lys Gly Arg Val Phe Arg Asn Pro Tyr Asn Tyr Gly Cys Leu  
 325 330 335

Asp Asn Trp Lys Val Phe Leu Gly Val Asp Thr Gly Arg His Trp Leu  
 340 345 350

Thr Arg Val Leu Leu Pro Ser Ser His Leu Pro His Gly Asn Gly Met  
 355 360 365

Ser Trp Glu Pro Pro Pro Trp Val Thr Ala His Ser Ala Ser Val Met  
 370 375 380

Ala Val  
 385

<210> 1278

<211> 164

<212> PRT

<213> Homo sapiens

<400> 1278

Val Lys Ala Ser Ala Glu Thr Pro Arg Pro Gln Pro Val Asp Lys Leu  
 1 5 10 15

Glu Lys Ile Leu Glu Lys Leu Leu Thr Arg Phe Pro Gln Cys Asn Lys  
 20 25 30

Ala Gln Met Thr Asn Ile Leu Gln Gln Ile Lys Thr Ala Arg Thr Thr  
 35 40 45

Met Ala Gly Leu Thr Met Glu Glu Leu Ile Gln Leu Val Ala Ala Arg  
 50 55 60

1308

Leu Ala Glu His Glu Arg Val Ala Ala Ser Thr Gln Pro Leu Gly Arg  
 65 70 75 80  
 Ile Arg Ala Leu Phe Pro Ala Pro Leu Ala Gln Ile Ser Thr Pro Met  
 85 90 95  
 Phe Leu Pro Ser Ala Gln Val Ser Tyr Pro Gly Arg Ser Ser His Ala  
 100 105 110  
 Pro Ala Thr Cys Lys Leu Cys Leu Met Cys Gln Lys Leu Val Gln Pro  
 115 120 125  
 Ser Glu Leu His Pro Met Ala Cys Thr His Val Leu His Lys Glu Cys  
 130 135 140  
 Ile Lys Phe Trp Ala Gln Thr Asn Thr Asn Asp Thr Cys Pro Phe Cys  
 145 150 155 160  
 Pro Thr Leu Lys

&lt;210&gt; 1279

&lt;211&gt; 469

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1279

Pro Val Ala Val Gly Arg Val Arg Val Thr Ala Glu Gly Arg Xaa Met  
 1 5 10 15

Val Leu Gln Thr Thr Lys Gly Leu Arg Leu Leu Phe Asp Gly Asp Ala  
 20 25 30

His Leu Leu Met Ser Ile Pro Ser Pro Phe Arg Gly Arg Leu Cys Gly  
 35 40 45

Leu Cys Gly Asn Phe Asn Gly Asn Trp Ser Asp Asp Phe Val Leu Pro  
 50 55 60



1309

Asn	Gly	Ser	Ala	Ala	Ser	Ser	Val	Glu	Thr	Phe	Gly	Ala	Ala	Trp	Arg	65	70	75	80
Xaa	Pro	Gly	Ser	Ser	Lys	Gly	Cys	Gly	Glu	Gly	Cys	Gly	Pro	Gln	Gly	85	90	95	
Cys	Pro	Val	Cys	Leu	Ala	Glu	Glu	Thr	Ala	Pro	Tyr	Glu	Ser	Asn	Glu	100	105	110	
Ala	Cys	Gly	Gln	Leu	Arg	Asn	Pro	Gln	Gly	Pro	Phe	Ala	Thr	Cys	Gln	115	120	125	
Ala	Val	Leu	Ser	Pro	Ser	Glu	Tyr	Phe	Arg	Gln	Cys	Val	Tyr	Asp	Leu	130	135	140	
Cys	Ala	Gln	Lys	Gly	Asp	Lys	Ala	Phe	Leu	Cys	Arg	Ser	Leu	Ala	Ala	145	150	155	160
Tyr	Thr	Ala	Ala	Cys	Gln	Ala	Ala	Gly	Val	Ala	Val	Lys	Pro	Trp	Arg	165	170	175	
Thr	Asp	Ser	Phe	Cys	Pro	Leu	His	Cys	Pro	Ala	His	Ser	His	Tyr	Ser	180	185	190	
Ile	Cys	Thr	Arg	Thr	Cys	Gln	Gly	Ser	Cys	Ala	Ala	Leu	Ser	Gly	Leu	195	200	205	
Thr	Gly	Cys	Thr	Thr	Arg	Cys	Phe	Glu	Gly	Cys	Glu	Cys	Asp	Asp	Arg	210	215	220	
Phe	Leu	Leu	Ser	Gln	Gly	Val	Cys	Ile	Pro	Val	Gln	Asp	Cys	Gly	Cys	225	230	235	240
Thr	His	Asn	Gly	Arg	Tyr	Leu	Pro	Val	Asn	Ser	Ser	Leu	Leu	Thr	Ser	245	250	255	
Asp	Cys	Ser	Glu	Arg	Cys	Ser	Cys	Ser	Ser	Ser	Ser	Gly	Leu	Thr	Cys	260	265	270	
Gln	Ala	Ala	Gly	Cys	Pro	Pro	Gly	Arg	Val	Cys	Glu	Val	Lys	Ala	Glu	275	280	285	
Ala	Arg	Asn	Cys	Trp	Ala	Thr	Arg	Gly	Leu	Cys	Val	Leu	Ser	Val	Gly	290	295	300	
Ala	Asn	Leu	Thr	Thr	Phe	Asp	Gly	Ala	Arg	Gly	Ala	Thr	Thr	Ser	Pro	305	310	315	320
Gly	Val	Tyr	Glu	Leu	Ser	Ser	Arg	Cys	Pro	Gly	Leu	Gln	Asn	Thr	Ile	325	330	335	

1310

Pro Trp Tyr Arg Val Val Ala Glu Val Gln Ile Cys His Gly Lys Thr  
                   340                  345                  350  
 Glu Ala Val Gly Gln Val His Ile Phe Phe Gln Asp Gly Met Val Thr  
                   355                  360                  365  
 Leu Thr Pro Asn Lys Gly Val Trp Val Asn Gly Leu Arg Val Asp Leu  
                   370                  375                  380  
 Pro Ala Glu Lys Leu Ala Ser Val Ser Val Ser Arg Thr Pro Asp Gly  
                   385                  390                  395                  400  
 Ser Leu Leu Val Arg Gln Lys Ala Gly Val Gln Val Trp Leu Gly Ala  
                   405                  410                  415  
 Asn Gly Lys Val Ala Val Ile Val Ser Asn Asp His Ala Gly Lys Leu  
                   420                  425                  430  
 Cys Gly Ala Cys Gly Asn Phe Asp Gly Asp Gln Thr Asn Asp Trp His  
                   435                  440                  445  
 Asp Ser Gln Glu Lys Pro Ala Met Glu Lys Trp Arg Ala Gln Asp Phe  
                   450                  455                  460  
 Ser Pro Cys Tyr Gly  
 465

&lt;210&gt; 1280

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (216)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (217)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1280

Gly Pro Arg Ala Leu Trp Pro Pro Pro Glu Val Gly Trp Gly Cys Ser  
   1                  5                  10                  15

Pro Asn Pro Thr Leu Leu Pro Pro Leu Ser His Phe Pro Leu Arg  
                   20                  25                  30

1311

Trp Gly Thr Asn Asn Lys Glu Leu Thr Leu Pro Ala Pro Asn Pro Pro  
                   35                                  40                                  45  
 Pro Ala Pro Pro Cys Pro Pro Arg Phe Trp Phe His Phe Ser Ser Val  
           50                                  55                                  60  
 His Lys Leu Pro Leu Asp Ser Cys Val Val Phe Cys Ser Met Phe His  
   65                                  70                                  75                                  80  
 Ser Ser Thr Ser Val Ile Ala Ala Ala Thr Ser Ala Lys Cys Ser Ser  
                   85                                  90                                  95  
 Ser Leu Pro Pro Val Leu Pro Thr Ile Pro Ser Pro Lys Ile Leu Phe  
                   100                                  105                                  110  
 Val Gly Lys Arg Gly Trp Gly Met Ala Gly Trp Val Thr Asp Tyr Pro  
           115                                  120                                  125  
 Ser Pro Arg Glu Gly Gly Ala Leu Pro Leu Gly Cys Cys Ser Arg Val  
   130                                  135                                  140  
 Ser Lys Gly Ala Arg Ile Asp His Lys Gly Cys Arg Gly His Leu Leu  
  145                                  150                                  155                                  160  
 Pro Leu Phe Cys Trp Gly Gly Val Ala Met Ile Cys Pro Ser Leu Gly  
                   165                                  170                                  175  
 Leu Pro Leu Trp Phe Pro Ile Cys Ser Tyr Leu Asn Lys Lys Asn Ile  
                   180                                  185                                  190  
 Leu Phe Trp Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
           195                                  200                                  205  
 Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Gly Gly Ala Pro Pro Pro  
   210                                  215                                  220

&lt;210&gt; 1281

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1281

Thr Gln Ser Lys Trp Arg Leu Glu Val Gln Cys Gly Lys Glu Lys Gln  
   1                                  5                                  10                                  15

1312

Val Phe Ile Glu Ser Thr Asn Ser Thr Pro Phe Lys Asn Phe Xaa Gly  
                   20                                  25                                  30

Thr Gln Pro Lys Gly  
                   35

&lt;210&gt; 1282

&lt;211&gt; 458

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (249)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1282

Gly Pro Gln Arg Leu Ser Pro Gly Ala Met Leu Pro Ala Ala Thr Ala  
   1                                  5                                  10                                  15

Ser Leu Leu Gly Pro Leu Leu Thr Ala Cys Ala Leu Leu Pro Phe Ala  
                   20                                  25                                  30

Gln Gly Gln Thr Pro Asn Tyr Thr Arg Pro Val Phe Leu Cys Gly Gly  
                   35                                  40                                  45

Asp Val Lys Gly Glu Ser Gly Tyr Val Ala Ser Glu Gly Phe Pro Asn  
                   50                                  55                                  60

Leu Tyr Pro Pro Asn Lys Glu Cys Ile Trp Thr Ile Thr Val Pro Glu  
   65                                  70                                  75                                  80

Gly Gln Thr Val Ser Leu Ser Phe Arg Val Phe Asp Leu Glu Leu His  
                                   85                                  90                                  95

Pro Ala Cys Arg Tyr Asp Ala Leu Glu Val Phe Ala Gly Ser Gly Thr  
                   100                                  105                                  110

Ser Gly Gln Arg Leu Gly Arg Phe Cys Gly Thr Phe Arg Pro Ala Pro  
                   115                                  120                                  125

Leu Val Ala Pro Gly Asn Gln Val Thr Leu Arg Met Thr Thr Asp Glu  
                   130                                  135                                  140

Gly Thr Gly Gly Arg Gly Phe Leu Leu Trp Tyr Ser Gly Arg Ala Thr  
   145                                  150                                  155                                  160

Ser Gly Thr Glu His Gln Phe Cys Gly Gly Arg Leu Glu Lys Ala Gln

1313

165	170	175
Gly Thr Leu Thr Thr Pro Asn Trp Pro Glu Ser Asp Tyr Pro Pro Gly		
180	185	190
Ile Ser Cys Ser Trp His Ile Ile Ala Pro Pro Asp Gln Val Ile Ala		
195	200	205
Leu Thr Phe Glu Lys Phe Asp Leu Glu Pro Asp Thr Tyr Cys Arg Tyr		
210	215	220
Asp Ser Val Ser Val Phe Asn Gly Ala Val Ser Asp Asp Ser Arg Arg		
225	230	235
Leu Gly Lys Phe Cys Gly Asp Ala Xaa Pro Gly Ser Ile Ser Ser Glu		
245	250	255
Gly Asn Glu Leu Leu Val Gln Phe Val Ser Asp Leu Ser Val Thr Ala		
260	265	270
Asp Gly Phe Ser Ala Ser Tyr Lys Thr Leu Pro Arg Gly Thr Ala Lys		
275	280	285
Glu Gly Gln Gly Pro Gly Pro Lys Arg Gly Thr Glu Pro Lys Val Lys		
290	295	300
Leu Pro Pro Lys Ser Gln Pro Pro Glu Lys Thr Glu Glu Ser Pro Ser		
305	310	315
Ala Pro Asp Ala Pro Thr Cys Pro Lys Gln Cys Arg Arg Thr Gly Thr		
325	330	335
Leu Gln Ser Asn Phe Cys Ala Ser Ser Leu Val Val Thr Ala Thr Val		
340	345	350
Lys Ser Met Val Arg Glu Pro Gly Glu Gly Leu Ala Val Thr Val Ser		
355	360	365
Leu Ile Gly Ala Tyr Lys Thr Gly Gly Leu Asp Leu Pro Ser Pro Pro		
370	375	380
Thr Gly Ala Ser Leu Lys Phe Tyr Val Pro Cys Lys Gln Cys Pro Pro		
385	390	395
Met Lys Lys Gly Val Ser Tyr Leu Leu Met Gly Gln Val Glu Glu Asn		
405	410	415
Arg Gly Pro Val Leu Pro Pro Glu Ser Phe Val Val Leu His Arg Pro		
420	425	430
Asn Gln Asp Gln Ile Leu Thr Asn Leu Ser Lys Arg Lys Cys Pro Ser		

1314

435

440

445

Gln Pro Val Arg Ala Ala Ala Ser Gln Asp  
 450 455

&lt;210&gt; 1283

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (154)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1283

Cys Arg Ala Pro Leu Gly Ala Gly Leu Ser Pro Ala Val Arg Arg Gln  
 1 5 10 15

Glu Pro Pro Phe Pro Leu Gly Val Thr Arg Gly Trp Gly Arg Trp Pro  
 20 25 30

Ile Gln Lys Arg Arg Glu Gly Ala Arg Pro Val Pro Xaa Ser Glu Arg  
 35 40 45

Ser Gln Glu Asp Gly Arg Gly Pro Ala Ala Arg Ser Ser Gly Thr Leu  
 50 55 60

Trp Arg Ile Arg Thr Arg Leu Ser Leu Cys Arg Asp Pro Glu Pro Pro  
 65 70 75 80

Pro Pro Leu Cys Leu Leu Arg Val Ser Leu Leu Cys Ala Leu Arg Ala  
 85 90 95

Gly Gly Arg Gly Ser Arg Trp Gly Glu Asp Gly Ala Arg Leu Leu Leu  
 100 105 110

Leu Pro Pro Ala Arg Ala Ala Gly Asn Gly Glu Ala Glu Pro Ser Gly  
 115 120 125

1315

Gly Pro Ser Tyr Ala Gly Arg Met Leu Glu Ser Ser Gly Cys Lys Ala  
 130 135 140  
 Leu Lys Glu Gly Val Leu Glu Lys Arg Xaa Xaa Gly Cys Cys Ser Ser  
 145 150 155 160  
 Gly Arg Lys Ser Val Ala Ser Ser Pro Arg Lys Gly Cys Cys Leu Ser  
 165 170 175  
 Arg Pro Ser Ser Cys Asn Thr Ser Ser Ser Ser Asn Ser Ser Ser Ser  
 180 185 190  
 Ser Ser Asn Asn Ser Pro Gly Arg Gly Arg Pro Ser Arg Pro Asn Pro  
 195 200 205  
 Val Ala Pro Leu Ser Pro Ala Ser Ser Arg Arg Ser Ser Ser Arg Asn  
 210 215 220  
 Cys Thr Ser Pro Thr  
 225

&lt;210&gt; 1284

&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1284

Thr Ser Val Ala Ala Ala Ala Arg Gly Arg Ala Gly Cys Pro Leu  
 1 5 10 15  
 Thr Ala Ala Ser Ala Ala Arg Phe Lys Met Ala Ala Cys Ser His Ser  
 20 25 30  
 Phe Ser Ala Glu Arg Leu Leu Thr Phe Ile Val Phe Ser Ala Arg Phe  
 35 40 45  
 Asp Arg Leu Xaa Pro Ala Ala Leu Ser Gly Ile Phe Tyr Gln Ala Glu  
 50 55 60  
 Met His Arg Thr Thr Arg Ile Lys Ile Thr Glu Leu Asn Pro His Leu  
 65 70 75 80  
 Met Cys Val Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Ile

[illegible]



1317

355 360 365  
Gln Ser Ser Phe Ala Asn Arg Pro Arg Lys Ser Ser Val Asn Gly Ser  
370 375 380

Ser Ala Thr Ser Ser Gly  
385 390

<210> 1285  
<211> 39  
<212> PRT  
<213> Homo sapiens

<400> 1285  
His Ala Ser Ala Gly Ser Gln Leu Phe Glu Met His Glu Lys Leu Ser  
1 5 10 15

Cys Met Ala Asn Ser Val Ile Lys Asn Leu Gln Ser Arg Trp Arg Ser  
20 25 30

Pro Ser His Glu Asn Ser Ile  
35

<210> 1286  
<211> 453  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (101)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (110)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (286)  
<223> Xaa equals any of the naturally occurring L-amino acids

1318

&lt;400&gt; 1286

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Arg Arg Ser Val Ile Cys Asp Ser Asn Ala Thr Ala Leu Glu Leu Pro
 1           5           10           15

Gly Leu Pro Leu Ser Leu Pro Gln Pro Ser Ile Pro Ala Ala Val Pro
      20           25           30

Gln Ser Ala Pro Pro Xaa Pro His Arg Glu Glu Thr Val Thr Ala Thr
      35           40           45

Ala Thr Ser Gln Val Ala Gln Gln Pro Pro Ala Ala Ala Ala Pro Gly
      50           55           60

Glu Gln Ala Val Ala Gly Pro Ala Pro Arg Leu Ser Pro Ala Val Pro
      65           70           75           80

Ala Lys Thr Ala Gln Cys Pro Ser Leu Ala Leu Trp Gly Ala Lys Arg
      85           90           95

Ser Arg Arg Arg Xaa Lys Val Ala Ala Ala Ala Gln Ala Xaa Lys Glu
      100          105          110

Pro Gln Glu Glu Arg Ser Gln Gln Gln Asp Asp Ile Glu Glu Leu Glu
      115          120          125

Thr Lys Ala Val Gly Met Ser Asn Asp Gly Arg Phe Leu Lys Phe Asp
      130          135          140

Ile Glu Ile Gly Arg Gly Ser Phe Lys Thr Val Tyr Lys Gly Leu Asp
      145          150          155          160

Thr Glu Thr Thr Val Glu Val Ala Trp Cys Glu Leu Gln Asp Arg Lys
      165          170          175

Leu Thr Lys Ser Glu Arg Gln Arg Phe Lys Glu Glu Ala Glu Met Leu
      180          185          190

Lys Gly Leu Gln His Pro Asn Ile Val Arg Phe Tyr Asp Ser Trp Glu
      195          200          205

Ser Thr Val Lys Gly Lys Lys Cys Ile Val Leu Val Thr Glu Leu Met
      210          215          220

Thr Ser Gly Thr Leu Lys Thr Tyr Leu Lys Arg Phe Lys Val Met Lys
      225          230          235          240

Ile Lys Val Leu Arg Ser Trp Cys Arg Gln Ile Leu Lys Gly Leu Gln
      245          250          255

Phe Leu His Thr Arg Thr Pro Pro Ile Ile His Arg Asp Leu Lys Cys

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1319

260	265	270
Asp Asn Ile Phe Ile Thr Gly Pro Thr Gly Ser Val Lys Xaa Gly Asp		
275	280	285
Leu Gly Leu Ala Thr Leu Lys Arg Ala Ser Phe Ala Lys Ser Val Ile		
290	295	300
Gly Thr Pro Glu Phe Met Ala Pro Glu Met Tyr Glu Glu Lys Tyr Asp		
305	310	315
Glu Ser Val Asp Val Tyr Ala Phe Gly Met Cys Met Leu Glu Met Ala		
325	330	335
Thr Ser Glu Tyr Pro Tyr Ser Glu Cys Gln Asn Ala Ala Gln Ile Tyr		
340	345	350
Arg Arg Val Thr Ser Gly Val Lys Pro Ala Ser Phe Asp Lys Val Ala		
355	360	365
Ile Pro Glu Val Lys Glu Ile Ile Glu Gly Cys Ile Arg Gln Asn Lys		
370	375	380
Asp Glu Arg Tyr Ser Ile Lys Asp Leu Leu Asn His Ala Phe Phe Gln		
385	390	395
Glu Glu Thr Gly Val Arg Val Glu Leu Ala Glu Glu Asp Asp Gly Glu		
405	410	415
Lys Ile Ala Ile Lys Leu Trp Leu Arg Ile Glu Asp Ile Lys Lys Leu		
420	425	430
Lys Gly Lys Tyr Lys Asp Lys Lys Lys Lys Lys Lys Lys Lys Lys		
435	440	445
Asn Thr His Arg Ala		
450		

&lt;210&gt; 1287

&lt;211&gt; 450

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1320

<221> SITE  
 <222> (41)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (193)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (314)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (326)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (344)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 1287  
 Ala Ala Glu Val Leu Cys Pro Ser Cys Phe Pro Ile Ser Pro Ala Pro  
   1                  5                  10                  15  
 Trp Met Thr Val Gly Pro Ala Ser Ala Leu Phe Pro Cys Gln Thr Pro  
           20                  25                  30  
 Xaa Phe Pro Trp Thr Glu Trp Asn Xaa Trp Xaa Phe Thr Ala His Val  
       35                  40                  45  
 Leu Ser Gln Lys Phe Glu Lys Glu Leu Ser Lys Val Arg Glu Tyr Val  
   50                  55                  60  
 Gln Leu Ile Ser Val Tyr Glu Lys Lys Leu Leu Asn Leu Thr Val Arg  
   65                  70                  75                  80  
 Ile Asp Ile Met Glu Lys Asp Thr Ile Ser Tyr Thr Glu Leu Asp Phe

85

95

Thr Thr Leu Gln Val Leu Asn Thr Trp Tyr Thr Lys Gln Tyr Lys Pro

1322

355                      360                      365  
 Ser Ala Ser Asn Ala Phe Met Val Cys Gly Val Leu Tyr Ala Thr Arg  
 370                      375                      380  
 Thr Met Asn Thr Arg Thr Glu Glu Ile Phe Tyr Tyr Tyr Asp Thr Asn  
 385                      390                      395                      400  
 Thr Gly Lys Glu Gly Lys Leu Asp Ile Val Met His Lys Met Gln Glu  
 405                      410                      415  
 Lys Val Gln Ser Ile Asn Tyr Asn Pro Phe Asp Gln Lys Leu Tyr Val  
 420                      425                      430  
 Tyr Asn Asp Gly Tyr Leu Leu Asn Tyr Asp Leu Ser Val Leu Gln Lys  
 435                      440                      445  
 Pro Gln  
 450

&lt;210&gt; 1288

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1288

Leu Gln Gln Ala Leu Pro Asn Asn Gly Leu Leu Phe Thr Trp Thr Leu  
 1                      5                      10                      15  
 Ser Lys Glu Gly Gly Arg Glu Gly Gln Ser Gly Val Ser Phe Gln His  
 20                      25                      30  
 Ser Ser Gln Lys Gly Glu Arg Phe Ser Gly Trp Cys His Ala Ile Gly  
 35                      40                      45  
 Ile Lys Gln Glu Ala His Gly Trp Leu Leu Asn Glu Glu Gln Asn Leu  
 50                      55                      60  
 Gly Ala Leu Trp Leu Thr Thr Ala Ile Cys Gly Ala Gly Thr His Thr  
 65                      70                      75                      80  
 Ser Arg Gln Leu Gln Phe Cys Thr Phe Ser Leu Leu Asp Ser Lys Ser  
 85                      90                      95  
 Arg Cys Cys Leu Ala Ala Leu Arg Gly His Ser Leu Leu Arg Arg Ala  
 100                      105                      110  
 Leu Gln Ser Pro Ala Pro Gly Leu Gly Glu Trp Met Arg Leu Leu Pro  
 115                      120                      125

1323

Tyr Asp Thr Cys Gln Asp Ala Leu Pro Pro Pro Leu Lys Val Gly Pro  
 130 135 140

Gly Gln His Cys Ser Leu Leu Ser Ala Phe Ser Gly Leu Arg Ser Gln  
 145 150 155 160

Tyr Glu Leu Pro

<210> 1289

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1289

Trp Met Ser Glu Tyr Xaa Gln Trp Val Phe Leu Ile Ser Leu Arg Ile  
 1 5 10 15

Cys Leu Arg Val His Tyr Gln Gly Ile Ser Gly Thr Arg Xaa His Ser  
 20 25 30

Leu His Gln Phe Leu Arg Val Leu  
 35 40

<210> 1290

<211> 266

<212> PRT

<213> Homo sapiens

<400> 1290

Asp Ile Met Glu Ser Gly Phe Thr Ser Lys Asp Thr Tyr Leu Ser His  
 1 5 10 15

Phe Asn Pro Arg Asp Tyr Leu Glu Lys Tyr Tyr Lys Phe Gly Ser Arg  
 20 25 30

1324

His Ser Ala Glu Ser Gln Ile Leu Lys His Leu Leu Lys Asn Leu Phe  
           35                          40                          45  
 Lys Ile Phe Cys Leu Asp Gly Val Lys Gly Asp Leu Leu Ile Asp Ile  
           50                          55                          60  
 Gly Ser Gly Pro Thr Ile Tyr Gln Leu Leu Ser Ala Cys Glu Ser Phe  
           65                          70                          75                          80  
 Lys Glu Ile Val Val Thr Asp Tyr Ser Asp Gln Asn Leu Gln Glu Leu  
                           85                          90                          95  
 Glu Lys Trp Leu Lys Lys Glu Pro Glu Ala Phe Asp Trp Ser Pro Val  
                           100                          105                          110  
 Val Thr Tyr Val Cys Asp Leu Glu Gly Asn Arg Val Lys Gly Pro Glu  
           115                          120                          125  
 Lys Glu Glu Lys Leu Arg Gln Ala Val Lys Gln Val Leu Lys Cys Asp  
           130                          135                          140  
 Val Thr Gln Ser Gln Pro Leu Gly Ala Val Pro Leu Pro Pro Ala Asp  
           145                          150                          155                          160  
 Cys Val Leu Ser Thr Leu Cys Leu Asp Ala Ala Cys Pro Asp Leu Pro  
                           165                          170                          175  
 Thr Tyr Cys Arg Ala Leu Arg Asn Leu Gly Ser Leu Leu Lys Pro Gly  
           180                          185                          190  
 Gly Phe Leu Val Ile Met Asp Ala Leu Lys Ser Ser Tyr Tyr Met Ile  
           195                          200                          205  
 Gly Glu Gln Lys Phe Ser Ser Leu Pro Leu Gly Arg Glu Ala Val Glu  
           210                          215                          220  
 Ala Ala Val Lys Glu Ala Gly Tyr Thr Ile Glu Trp Phe Glu Val Ile  
           225                          230                          235                          240  
 Ser Gln Ser Tyr Ser Ser Thr Met Ala Asn Asn Glu Gly Leu Phe Ser  
                           245                          250                          255  
 Leu Val Ala Arg Lys Leu Ser Arg Pro Leu  
           260                          265

&lt;210&gt; 1291

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



1325

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1291

Cys Gly Ser Thr Ile Leu Gln Gly Pro Gln Lys Ala Leu Arg Arg Gly  
 1 5 10 15

Leu Gly Glu Val Gly Asp Gln Gly Lys Ser Arg Gln Arg Ala Ser Lys  
 20 25 30

Arg Leu Phe Ala Ser Lys Ala Leu Arg Gly His Leu Arg Pro Val Arg  
 35 40 45

Gly Gln Gln Pro Gly Arg Xaa Gly Ser Asp Glu Asn Glu Glu Ser Ser  
 50 55 60

Val Val Asp Tyr Val Glu Val Thr Val Gly Glu Glu Asp Ala Ile Ser  
 65 70 75 80

Asp Arg Ser Asp Ser Trp Ser Gln Ala Ala Ala Glu Gly Val Ser Glu  
 85 90 95

Leu Ala Glu Ser Asp Ser Asp Cys Val Pro Ala Glu Ala Gly Gln Ala  
 100 105 110

&lt;210&gt; 1292

&lt;211&gt; 217

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1292

Gly Ser Thr His Ala Ser Gly Thr Met Arg Ala Ala Ala Ile Ser Thr  
 1 5 10 15

Pro Lys Leu Asp Lys Met Pro Gly Met Phe Phe Ser Ala Asn Pro Lys  
 20 25 30

Glu Leu Lys Gly Thr Thr His Ser Leu Leu Asp Asp Lys Met Gln Lys  
 35 40 45

Arg Arg Pro Lys Thr Phe Gly Met Asp Met Lys Ala Tyr Leu Arg Ser  
 50 55 60

1326

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Met Ile Pro His Leu Glu Ser Gly Met Lys Ser Ser Lys Ser Lys Asp
 65              70              75              80

Val Leu Ser Ala Ala Glu Val Met Gln Trp Ser Gln Ser Leu Glu Lys
      85              90              95

Leu Leu Ala Asn Gln Thr Gly Gln Asn Val Phe Gly Ser Phe Leu Lys
      100             105             110

Ser Glu Phe Ser Glu Glu Asn Ile Glu Phe Trp Leu Ala Cys Glu Asp
      115             120             125

Tyr Lys Lys Thr Glu Ser Asp Leu Leu Pro Cys Lys Ala Glu Glu Ile
      130             135             140

Tyr Lys Ala Phe Val His Ser Asp Ala Ala Lys Gln Ile Asn Ile Asp
      145             150             155             160

Phe Arg Thr Arg Glu Ser Thr Ala Lys Lys Ile Lys Ala Pro Thr Pro
      165             170             175

Thr Cys Phe Asp Glu Ala Gln Lys Val Ile Tyr Thr Leu Met Glu Lys
      180             185             190

Asp Ser Tyr Pro Arg Phe Leu Lys Ser Asp Ile Tyr Leu Asn Leu Leu
      195             200             205

Asn Asp Leu Gln Ala Asn Ser Leu Lys
      210             215

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&lt;210&gt; 1293

&lt;211&gt; 235

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (229)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1293

```

Leu His Leu Leu Ala Val Leu Glu Lys Met Ile Ser Gln Gly Asn Asn
 1              5              10              15

Asn Lys Asn Gly Lys Asn Glu Thr Gly Asn Asn Asn Asn Lys Asp Gly
      20              25              30

Ser Asn His Lys Ala Glu Ser Gly Ala Leu Ile Glu Ala Ala Lys Ser
      35              40              45

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1327

Lys Ile His Gln Tyr Lys Val Arg Ala Tyr Ile Gln Met Lys Ser Leu  
 50 55 60  
 Lys Ala Cys Lys Arg Glu Ile Lys Ser Val Met Asn Thr Ala Gly Asn  
 65 70 75 80  
 Ser Ala Pro Ser Leu Phe Leu Lys Ser Asn Phe Glu Tyr Leu Arg Gly  
 85 90 95  
 Asn Tyr Arg Lys Ala Val Lys Leu Leu Asn Ser Ser Asn Ile Ala Glu  
 100 105 110  
 His Pro Gly Phe Met Lys Thr Gly Glu Cys Leu Arg Cys Met Phe Trp  
 115 120 125  
 Asn Asn Leu Gly Cys Ile His Phe Ala Met Ser Lys His Asn Leu Gly  
 130 135 140  
 Ile Phe Tyr Phe Lys Lys Ala Leu Gln Glu Asn Asp Asn Val Cys Ala  
 145 150 155 160  
 Gln Leu Ser Ala Gly Ser Thr Asp Pro Gly Lys Lys Phe Ser Gly Arg  
 165 170 175  
 Pro Met Cys Thr Leu Leu Thr Asn Lys Arg Tyr Glu Leu Leu Tyr Asn  
 180 185 190  
 Cys Gly Ile Gln Leu Leu His Ile Gly Arg Pro Leu Ala Ala Phe Glu  
 195 200 205  
 Cys Leu Ile Glu Ala Val Gln Val Tyr His Ala Asn Pro Arg Leu Trp  
 210 215 220  
 Leu Arg Leu Ala Xaa Met Leu His Cys Cys Gln  
 225 230 235

&lt;210&gt; 1294

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1328

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1294

Ala	Arg	Gly	Ala	Arg	Gly	Arg	Ala	Leu	Pro	Ala	Ser	Gly	Lys	Ala	Gly
1				5					10					15	

Arg	Ala	Arg	Gly	Ser	Ala	Xaa	Gly	Ser	Ala	Ala	Arg	Gly	His	Trp	Ser
		20						25					30		

Leu	Ala	Arg	Phe	Pro	Ala	Pro	Arg	Gly	Ser	His	Leu	Pro	Ala	Arg	Arg
		35					40					45			

Xaa	Xaa	Gly	Arg	Val	Ser	Thr	Pro	Ile	Leu	Arg	Pro	Val	Ser	Ser	Ile
	50					55					60				

Pro	Leu	Ala	Leu	Ser	Arg	Glu	Ser	Arg	Thr	Ala	Glu	Glu	Ser	Ser	Leu
65					70					75					80

Thr	Pro	Gln	Pro	Gln	Val	Gly	Leu	Val	His	Ile	Met	Thr	Ser	Phe	Glu
				85					90					95	

Asp	Ala	Asp	Thr	Glu	Glu	Thr	Val	Thr	Cys	Leu	Gln	Met	Thr	Val	Tyr
			100						105					110	

His	Pro	Gly	Gln	Leu	Gln	Cys	Gly	Ile	Phe	Gln	Ser	Ile	Ser	Phe	Asn
		115					120					125			

Arg	Glu	Lys	Leu	Pro	Ser	Ser	Glu	Val	Val	Lys	Phe	Gly	Arg	Asn	Ser
		130				135					140				

Asn	Ile	Cys	His	Tyr	Thr	Phe	Gln	Asp	Lys	Gln	Val	Ser	Arg	Val	Gln
145					150					155					160

Phe	Ser	Leu	Gln	Leu	Phe	Lys	Lys	Phe	Asn	Ser	Ser	Val	Leu	Ser	Phe
			165						170					175	

Glu	Ile	Lys	Asn	Met	Ser	Lys	Lys	Thr	Asn	Leu	Ile	Val	Asp	Ser	Arg
			180						185					190	

Glu	Leu	Gly	Tyr	Leu	Asn	Lys	Met	Asp	Leu	Pro	Tyr	Arg	Cys	Met	Val
		195					200					205			

Arg	Phe	Gly	Glu	Tyr	Gln	Phe	Leu	Met	Glu	Lys	Glu	Asp	Gly	Glu	Ser
		210				215						220			

1329

Leu Glu Phe Phe Glu Thr Gln Phe Ile Leu Ser Pro Arg Ser Leu Leu  
 225 230 235 240

Gln Glu Asn Asn Trp Pro Pro His Arg Pro Ile Pro Glu Tyr Gly Thr  
 245 250 255

Tyr Ser Leu Cys Ser Ser Gln Ser Ser Ser Pro Thr Glu Met Asp Glu  
 260 265 270

Asn Glu Ser  
 275

<210> 1295

<211> 677

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1295

Met Thr Arg Leu Pro Lys Leu Trp Ala Arg Pro Ala Gly Lys Ala Leu  
 1 5 10 15

Val Ser Pro Val Val Gln Asn Ile Thr Ser Pro Asp Glu Asp Gly Ile  
 20 25 30

Ser Pro Leu Gly Trp Leu Leu Asp Gln Tyr Leu Glu Cys Gln Glu Ala  
 35 40 45

Val Phe Asn Pro Gln Ser Arg Gly Pro Ala Phe Phe Ser Arg Val Arg  
 50 55 60

Arg Leu Thr His Leu Leu Val His Val Glu Pro Cys Glu Ala Pro Pro  
 65 70 75 80

Pro Val Val Ala Thr Pro Arg Pro Lys Gly Arg Asn Arg Ser His Asp  
 85 90 95

Trp Ser Ser Leu Ala Thr Arg Gly Leu Pro Ser Ser Ile Met Arg Asn  
 100 105 110

1330

Leu Thr Arg Cys Trp Arg Ala Val Val Glu Lys Gln Val Asn Asn Phe		
115	120	125
Leu Thr Ser Ser Trp Arg Asp Asp Asp Phe Val Pro Arg Tyr Cys Xaa		
130	135	140
His Phe Asn Ile Leu Gln Asn Ser Ser Ser Glu Leu Phe Gly Pro Arg		
145	150	155 160
Xaa Ala Phe Leu Leu Ala Leu Gln Asn Gly Cys Ala Gly Ala Leu Leu		
	165	170 175
Lys Leu Pro Phe Leu Lys Ala Ala His Val Ser Glu Gln Phe Ala Arg		
	180	185 190
His Ile Asp Gln Gln Ile Gln Gly Ser Arg Ile Gly Gly Ala Gln Glu		
	195	200 205
Met Glu Arg Leu Ala Gln Leu Gln Gln Cys Leu Gln Ala Val Leu Ile		
	210	215 220
Phe Ser Gly Leu Glu Ile Ala Thr Thr Phe Glu His Tyr Tyr Gln His		
225	230	235 240
Tyr Met Ala Asp Arg Leu Leu Gly Val Val Ser Ser Trp Leu Glu Gly		
	245	250 255
Ala Val Leu Glu Gln Ile Gly Pro Cys Phe Pro Asn Arg Leu Pro Gln		
	260	265 270
Gln Met Leu Gln Ser Leu Ser Thr Ser Lys Glu Leu Gln Arg Gln Phe		
	275	280 285
His Val Tyr Gln Leu Gln Gln Leu Asp Gln Glu Leu Leu Lys Leu Glu		
	290	295 300
Asp Thr Glu Lys Lys Ile Gln Val Gly Leu Gly Ala Ser Gly Lys Glu		
305	310	315 320
His Lys Ser Glu Lys Glu Glu Glu Ala Gly Ala Ala Ala Val Val Asp		
	325	330 335
Val Ala Glu Gly Glu Glu Glu Glu Glu Glu Asn Glu Asp Leu Tyr Tyr		
	340	345 350
Glu Gly Ala Met Pro Glu Val Ser Val Leu Val Leu Ser Arg His Ser		
	355	360 365
Trp Pro Val Ala Ser Ile Cys His Thr Leu Asn Pro Arg Thr Cys Leu		
	370	375 380

1331

Pro Ser Tyr Leu Arg Gly Thr Leu Asn Arg Tyr Ser Asn Phe Tyr Asn  
 385 390 395 400  
 Lys Ser Gln Ser His Pro Ala Leu Glu Arg Gly Ser Gln Arg Arg Leu  
 405 410 415  
 Gln Trp Thr Trp Leu Gly Trp Ala Glu Leu Gln Phe Gly Asn Gln Thr  
 420 425 430  
 Leu His Val Ser Thr Val Gln Met Trp Leu Leu Leu Tyr Leu Asn Asp  
 435 440 445  
 Leu Lys Ala Val Ser Val Glu Ser Leu Leu Ala Phe Ser Gly Leu Ser  
 450 455 460  
 Ala Asp Met Leu Asn Gln Ala Ile Gly Pro Leu Thr Ser Ser Arg Gly  
 465 470 475 480  
 Pro Leu Asp Leu His Glu Gln Lys Asp Ile Pro Gly Gly Val Leu Lys  
 485 490 495  
 Ile Arg Asp Gly Ser Lys Glu Pro Arg Ser Arg Trp Asp Ile Val Arg  
 500 505 510  
 Leu Ile Pro Pro Gln Thr Tyr Leu Gln Ala Glu Gly Glu Asp Gly Gln  
 515 520 525  
 Asn Leu Glu Lys Arg Arg Asn Leu Leu Asn Cys Leu Ile Val Arg Ile  
 530 535 540  
 Leu Lys Ala His Gly Asp Glu Gly Leu His Ile Asp Gln Leu Val Cys  
 545 550 555 560  
 Leu Val Leu Glu Ala Trp Gln Lys Gly Pro Cys Pro Pro Arg Gly Leu  
 565 570 575  
 Val Ser Ser Leu Gly Lys Gly Ser Ala Cys Ser Ser Thr Asp Val Leu  
 580 585 590  
 Ser Cys Ile Leu His Leu Leu Gly Lys Gly Thr Leu Arg Arg His Asp  
 595 600 605  
 Asp Arg Pro Gln Val Leu Ser Tyr Ala Val Pro Val Thr Val Met Glu  
 610 615 620  
 Pro His Thr Glu Ser Leu Asn Pro Gly Ser Ser Gly Pro Asn Pro Pro  
 625 630 635 640  
 Leu Thr Phe His Thr Leu Gln Ile Arg Ser Arg Gly Val Pro Tyr Ala  
 645 650 655

1332

Ser Cys Thr Ala Thr Gln Ser Phe Ser Thr Ser Gly Ser Pro Arg Leu  
 660 665 670

Gly Val Arg Gly Arg  
 675

&lt;210&gt; 1296

&lt;211&gt; 578

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1296

Gly Thr Arg Glu Gly Ala Arg Val Gly Gly Ala Arg Gly Gly Arg Asp  
 1 5 10 15

Gly Arg Lys Met Ala Thr Ala Thr Ile Ala Leu Gln Val Asn Gly Gln  
 20 25 30

Gln Gly Gly Gly Ser Glu Pro Ala Ala Ala Ala Val Val Ala Ala  
 35 40 45

Gly Asp Lys Trp Lys Pro Pro Gln Gly Thr Asp Ser Ile Lys Met Glu  
 50 55 60

Asn Gly Gln Ser Thr Ala Ala Lys Leu Gly Leu Pro Pro Leu Thr Pro  
 65 70 75 80

Glu Gln Gln Glu Ala Leu Gln Lys Ala Lys Lys Tyr Ala Met Glu Gln  
 85 90 95

Ser Ile Lys Ser Val Leu Val Lys Gln Thr Ile Ala His Gln Gln Gln  
 100 105 110

Gln Leu Thr Asn Leu Gln Met Ala Ala Val Thr Met Gly Phe Gly Asp  
 115 120 125

Pro Leu Ser Pro Leu Gln Ser Met Ala Ala Gln Arg Gln Arg Ala Leu  
 130 135 140

Ala Ile Met Cys Arg Val Tyr Val Gly Ser Ile Tyr Tyr Glu Leu Gly  
 145 150 155 160

Glu Asp Thr Ile Arg Gln Ala Phe Ala Pro Phe Gly Pro Ile Lys Ser  
 165 170 175

Ile Asp Met Ser Trp Asp Ser Val Thr Met Lys His Lys Gly Phe Ala  
 180 185 190

Phe Val Glu Tyr Glu Val Pro Glu Ala Ala Gln Leu Ala Leu Glu Gln



1333

195	200	205
Met Asn Ser Val Met Leu Gly Gly Arg Asn Ile Lys Val Gly Arg Pro		
210	215	220
Ser Asn Ile Gly Gln Ala Gln Pro Ile Ile Asp Gln Leu Ala Glu Glu		
225	230	235 240
Ala Arg Ala Phe Asn Arg Ile Tyr Val Ala Ser Val His Gln Asp Leu		
	245	250 255
Ser Asp Asp Asp Ile Lys Ser Val Phe Glu Ala Phe Gly Lys Ile Lys		
	260	265 270
Ser Cys Thr Leu Ala Arg Asp Pro Thr Thr Gly Lys His Lys Gly Tyr		
	275	280 285
Gly Phe Ile Glu Tyr Glu Lys Ala Gln Ser Ser Gln Asp Ala Val Ser		
	290	295 300
Ser Met Asn Leu Phe Asp Leu Gly Gly Gln Tyr Leu Arg Val Gly Lys		
	305	310 315 320
Ala Val Thr Pro Pro Met Pro Leu Leu Thr Pro Ala Thr Pro Gly Gly		
	325	330 335
Leu Pro Pro Ala Ala Ala Val Ala Ala Ala Ala Ala Thr Ala Lys Ile		
	340	345 350
Thr Ala Gln Glu Ala Val Ala Gly Ala Ala Val Leu Gly Thr Leu Gly		
	355	360 365
Thr Pro Gly Leu Val Ser Pro Ala Leu Thr Leu Ala Gln Pro Leu Gly		
	370	375 380
Thr Leu Pro Gln Ala Val Met Ala Ala Gln Ala Pro Gly Val Ile Thr		
	385	390 395 400
Gly Val Thr Pro Ala Arg Pro Pro Ile Pro Val Thr Ile Pro Ser Val		
	405	410 415
Gly Val Val Asn Pro Ile Leu Ala Ser Pro Pro Thr Leu Gly Leu Leu		
	420	425 430
Glu Pro Lys Lys Glu Lys Glu Glu Glu Glu Leu Phe Pro Glu Ser Glu		
	435	440 445
Arg Pro Glu Met Leu Ser Glu Gln Glu His Met Ser Ile Ser Gly Ser		
	450	455 460
Ser Ala Arg His Met Val Met Gln Lys Leu Leu Arg Lys Gln Glu Ser		

1334

465                      470                      475                      480  
 Thr Val Met Val Leu Arg Asn Met Val Asp Pro Lys Asp Ile Asp Asp  
                                  485                      490                      495  
 Asp Leu Glu Gly Glu Val Thr Glu Glu Cys Gly Lys Phe Gly Ala Val  
                                  500                      505                      510  
 Asn Arg Val Ile Ile Tyr Gln Glu Lys Gln Gly Glu Glu Glu Asp Ala  
                                  515                      520                      525  
 Glu Ile Ile Val Lys Ile Phe Val Glu Phe Ser Ile Ala Ser Glu Thr  
                                  530                      535                      540  
 His Lys Ala Ile Gln Ala Leu Asn Gly Arg Trp Phe Ala Gly Arg Lys  
 545                                   550                                   555                                   560  
 Val Val Ala Glu Val Tyr Asp Gln Glu Arg Phe Asp Asn Ser Asp Leu  
                                  565                                   570                                   575  
 Ser Ala

<210> 1297  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

<400> 1297  
 Pro Arg Gly Thr Ser Arg Arg Ser Ala Trp Pro Lys Met Ala Ala Ser  
   1                                    5                                    10                                    15  
 Val Cys Ser Gly Leu Leu Gly Pro Arg Val Leu Ser Trp Ser Arg Glu  
                                  20                                    25                                    30  
 Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro Val Cys Ala Lys  
                                  35                                    40                                    45  
 Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp Lys Pro Val Thr  
                                  50                                    55                                    60  
 Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His Arg Lys Gly Trp  
   65                                    70                                    75                                    80  
 Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp His Ala Ala Glu  
                                  85                                    90                                    95  
 Arg Thr Val Glu Asp Val Phe Leu Arg Lys Phe Met Trp Gly Thr Phe  
                                  100                                    105                                    110

1335

Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg Arg Gly Asn Gln  
 115 120 125

Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser Pro His Lys Tyr  
 130 135 140

Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser Tyr Phe Tyr Lys  
 145 150 155 160

Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser Lys Val Val Tyr  
 165 170 175

Lys Tyr Leu

&lt;210&gt; 1298

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1298

Gly Leu Val Thr Ile Phe Gly Cys Pro Ser Arg Glu Lys Gly Arg Met  
 1 5 10 15

Pro Leu Glu Ser Ser Ser Ser Met Pro Leu Ser Phe Pro Ser Leu Leu  
 20 25 30

Pro Ser Val Pro His Asn Thr Asn Pro Ser Pro Pro Leu Met Ser Tyr  
 35 40 45

Ile Thr Ser Gln Glu Met Lys Cys Ile Leu His Trp Phe Ala Asn Trp  
 50 55 60

Ser Gly Pro Gln Arg Glu Arg Phe Leu Glu Asp Leu Val Ala Lys Ala  
 65 70 75 80

Val Pro Glu Lys Leu Gln Pro Leu Leu Asp Ser Leu Glu Gln Leu Ser  
 85 90 95

Val Ser Gly Ala Asp Arg Pro Pro Ser Ile Phe Glu Cys Gln Leu His  
 100 105 110

Leu Trp Asp Gln Trp Phe Arg Gly Trp Ala Glu Gln Glu Arg Asn Glu  
 115 120 125

Phe Val Arg Gln Leu Glu Phe Ser Glu Pro Asp Phe Val Ala Lys Phe  
 130 135 140

1336

Tyr Gln Ala Val Ala Ala Thr Ala Gly Lys Asp  
 145 150 155

&lt;210&gt; 1299

&lt;211&gt; 449

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1299

Ser Asn Arg Lys Phe Ile Pro His Gln Leu Leu Val Ala Ile Asp Leu  
 1 5 10 15

Leu Ala Arg Gln Ala Val Arg Tyr Ile Asn Glu Asn Leu Ile Val Asn  
 20 25 30

Thr Asp Glu Leu Gly Arg Asp Cys Leu Ile Asn Ala Ala Lys Thr Ser  
 35 40 45

Met Ser Ser Lys Ile Ile Gly Ile Asn Gly Asp Phe Phe Ala Asn Met  
 50 55 60

Val Val Asp Ala Val Leu Ala Ile Lys Tyr Thr Asp Ile Arg Gly Gln  
 65 70 75 80

Pro Arg Tyr Pro Val Asn Ser Val Asn Ile Leu Lys Ala His Gly Arg  
 85 90 95

Ser Gln Met Glu Ser Met Leu Ile Ser Gly Tyr Ala Leu Asn Cys Val  
 100 105 110

Val Gly Ser Gln Gly Met Pro Lys Arg Ile Val Asn Ala Lys Ile Ala  
 115 120 125

Cys Leu Asp Phe Ser Leu Gln Lys Thr Lys Met Lys Leu Gly Val Gln  
 130 135 140

Val Val Ile Thr Asp Pro Glu Lys Leu Asp Gln Ile Arg Gln Arg Glu  
 145 150 155 160

Ser Asp Ile Thr Lys Glu Arg Ile Gln Lys Ile Leu Ala Thr Gly Ala  
 165 170 175

Asn Val Ile Leu Thr Thr Gly Gly Ile Asp Asp Met Cys Leu Lys Tyr  
 180 185 190

Phe Val Glu Ala Gly Ala Met Ala Val Arg Arg Val Leu Lys Arg Asp  
 195 200 205

Leu Lys Arg Ile Ala Lys Ala Ser Gly Ala Thr Ile Leu Ser Thr Leu

1337

210	215	220
Ala Asn Leu Glu Gly Glu Glu Thr Phe Glu Ala Ala Met Leu Gly Gln 225 230 235 240		
Ala Glu Glu Val Val Gln Glu Arg Ile Cys Asp Asp Glu Leu Ile Leu 245 250 255		
Ile Lys Asn Thr Lys Ala Arg Thr Ser Ala Ser Ile Ile Leu Arg Gly 260 265 270		
Ala Asn Asp Phe Met Cys Asp Glu Met Glu Arg Ser Leu His Asp Ala 275 280 285		
Leu Cys Val Val Lys Arg Val Leu Glu Ser Lys Ser Val Val Pro Gly 290 295 300		
Gly Gly Ala Val Glu Ala Ala Leu Ser Ile Tyr Leu Glu Asn Tyr Ala 305 310 315 320		
Thr Ser Met Gly Ser Arg Glu Gln Leu Ala Ile Ala Glu Phe Ala Arg 325 330 335		
Ser Leu Leu Val Ile Pro Asn Thr Leu Ala Val Asn Ala Ala Gln Asp 340 345 350		
Ser Thr Asp Leu Val Ala Lys Leu Arg Ala Phe His Asn Glu Ala Gln 355 360 365		
Val Asn Pro Glu Arg Lys Asn Leu Lys Trp Ile Gly Leu Asp Leu Ser 370 375 380		
Asn Gly Lys Pro Arg Asp Asn Lys Gln Ala Gly Val Phe Glu Pro Thr 385 390 395 400		
Ile Val Lys Val Lys Ser Leu Lys Phe Ala Thr Glu Ala Ala Ile Thr 405 410 415		
Ile Leu Arg Ile Asp Asp Leu Ile Lys Leu His Pro Glu Ser Lys Asp 420 425 430		
Asp Lys His Gly Ser Tyr Glu Asp Ala Val His Ser Gly Ala Leu Asn 435 440 445		

Asp

&lt;210&gt; 1300

&lt;211&gt; 96

1338

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1300

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Leu Met Phe Tyr Val Leu Phe Trp Thr Leu Ser Ser Cys Lys Asn Phe
 1             5             10             15

Tyr Lys Asn Cys Phe Leu His Pro Cys Gly Ala Tyr Ser Ser Glu Pro
          20             25             30

Ser Pro Gln Ser Gln Cys Leu Cys Phe Leu Phe Tyr Phe Cys Ser Ile
          35             40             45

Arg Phe Leu Leu Leu Leu Cys Leu Lys Ser Ser Leu Gly Ser Tyr Gln
 50             55             60

Gly Phe Ser Phe Cys Val Ala Phe Ala Ala Trp Ile Lys His Trp Leu
 65             70             75             80

Thr Val Leu Met Cys Glu Glu Lys Lys Phe Ser Lys Ala Gly Glu Leu
          85             90             95

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&lt;210&gt; 1301

&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1301

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Gly Glu Pro Lys Met Thr Gly Ser Asn Glu Phe Lys Leu Asn Gln Pro
 1             5             10             15

Pro Glu Asp Gly Ile Ser Ser Val Lys Phe Ser Pro Asn Thr Ser Gln
          20             25             30

Phe Leu Leu Val Ser Ser Trp Asp Thr Ser Val Arg Leu Tyr Asp Val
          35             40             45

Pro Ala Asn Ser Met Arg Leu Lys Tyr Gln His Thr Gly Ala Val Leu
          50             55             60

Asp Cys Ala Phe Tyr Asp Pro Thr His Ala Trp Ser Gly Gly Leu Asp
          65             70             75             80

His Gln Leu Lys Met His Asp Leu Asn Thr Asp Gln Glu Asn Leu Val
          85             90             95

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1339

Gly Thr His Asp Ala Pro Ile Arg Cys Val Glu Tyr Cys Pro Glu Val  
 100 105 110  
 Asn Val Met Val Thr Gly Ser Trp Asp Gln Thr Val Lys Leu Trp Asp  
 115 120 125  
 Pro Arg Thr Pro Cys Asn Ala Gly Thr Phe Ser Gln Pro Glu Lys Val  
 130 135 140  
 Tyr Thr Leu Ser Val Ser Gly Asp Arg Leu Ile Val Gly Thr Ala Gly  
 145 150 155 160  
 Arg Arg Val Leu Val Trp Asp Leu Arg Asn Met Gly Tyr Val Gln Gln  
 165 170 175  
 Arg Arg Glu Ser Ser Leu Lys Tyr Gln Thr Arg Cys Ile Arg Ala Phe  
 180 185 190  
 Pro Asn Lys Gln Gly Tyr Val Leu Ser Ser Ile Glu Gly Arg Val Ala  
 195 200 205  
 Val Glu Tyr Leu Asp Pro Ser Pro Glu Val Gln Lys Lys Lys Tyr Ala  
 210 215 220  
 Phe Lys Cys His Arg Leu Lys Glu Asn Asn Ile Glu Gln Ile Tyr Pro  
 225 230 235 240  
 Val Asn Ala Ile Ser Phe His Asn Ile His Asn Thr Phe Ala Thr Gly  
 245 250 255  
 Gly Ser Asp Gly Phe Val Asn Ile Trp Asp Pro Phe Asn Lys Lys Arg  
 260 265 270  
 Leu Cys Gln Phe His Arg Tyr Pro Thr Ser Ile Ala Ser Leu Ala Phe  
 275 280 285  
 Ser Asn Asp Gly Thr Thr Leu Ala Ile Ala Ser Ser Tyr Met Tyr Glu  
 290 295 300  
 Met Asp Asp Thr Glu His Pro Glu Asp Gly Ile Phe Ile Arg Gln Val  
 305 310 315 320  
 Thr Asp Ala Glu Thr Lys Pro Lys Ser Pro Cys Thr  
 325 330

&lt;210&gt; 1302

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1340

&lt;400&gt; 1302

Leu His Cys Thr Met Cys Gly Ile Trp Ala Leu Phe Gly Ser Asp Asp  
 1 5 10 15

Cys Leu Ser Val Gln Cys Leu Ser Ala Met Lys Ile Ala His Arg Gly  
 20 25 30

Pro Asp Ala Phe Arg Phe Glu Asn Val Asn Gly Tyr Thr Asn Cys Cys  
 35 40 45

Phe Gly Phe His Arg Leu Ala Val Val Asp Pro Leu Phe Gly Met Gln  
 50 55 60

Pro Ile Arg Val Lys Lys Tyr Pro Tyr Leu Trp Leu Cys Tyr Asn Gly  
 65 70 75 80

Glu Ile Tyr Asn His Lys Lys Met Gln Gln His Phe Glu Phe Glu Tyr  
 85 90 95

Gln Thr Lys Val Asp Gly Glu Ile Ile Leu His Leu Tyr Asp Lys Gly  
 100 105 110

Gly Ile Glu Gln Thr Ile Cys Met Leu Asp Gly Val Phe Ala Phe Val  
 115 120 125

Leu Leu Asp Thr Ala Asn Lys Lys Val Phe Leu Gly Arg Asp Thr Tyr  
 130 135 140

Gly Val Arg Pro Leu Phe Lys Ala Met Thr Glu Asp Gly Phe Leu Ala  
 145 150 155 160

Val Cys Ser Glu Ala Lys Gly Leu Val Thr Leu Lys His Ser Ala Thr  
 165 170 175

Pro Phe Leu Lys Val Glu Pro Phe Leu Pro Gly His Tyr Glu Val Leu  
 180 185 190

Asp Leu Lys Pro Asn Gly Lys Val Ala Ser Val Glu Met Val Lys Tyr  
 195 200 205

His His Cys Arg Asp Glu Pro Leu His Ala Leu Tyr Asp Asn Val Glu  
 210 215 220

Lys Leu Phe Pro Gly Phe Glu Ile Glu Thr Val Lys Asn Asn Leu Arg  
 225 230 235 240

Ile Leu Phe Asn Asn Ala Val Lys Lys Arg Leu Met Thr Asp Arg Arg  
 245 250 255

Ile Gly Cys Leu Leu Ser Gly Gly Leu Asp Ser Ser Leu Val Ala Ala



1341

260	265	270
Thr Leu Leu Lys Gln Leu Lys Glu Ala Gln Val Gln Tyr Pro Leu Gln		
275	280	285
Thr Phe Ala Ile Gly Met Glu Asp Ser Pro Asp Leu Leu Ala Ala Arg		
290	295	300
Lys Val Ala Asp His Ile Gly Ser Glu His Tyr Glu Val Leu Phe Asn		
305	310	315
Ser Glu Glu Gly Ile Gln Ala Leu Asp Glu Val Ile Phe Ser Leu Glu		
325	330	335
Thr Tyr Asp Ile Thr Thr Val Arg Ala Ser Val Gly Met Tyr Leu Ile		
340	345	350
Ser Lys Tyr Ile Arg Lys Asn Thr Asp Ser Val Val Ile Phe Ser Gly		
355	360	365
Glu Gly Ser Asp Glu Leu Thr Gln Gly Tyr Ile Tyr Phe His Lys Ala		
370	375	380
Pro Ser Pro Glu Lys Ala Glu Glu Glu Ser Glu Arg Leu Leu Arg Glu		
385	390	395
Leu Tyr Leu Phe Asp Val Leu Arg Ala Asp Arg Thr Thr Ala Ala His		
405	410	415
Gly Leu Glu Leu Arg Val Pro Phe Leu Asp His Arg Phe Ser Ser Tyr		
420	425	430
Tyr Leu Ser Leu Pro Pro Glu Met Arg Ile Pro Lys Asn Gly Ile Glu		
435	440	445
Lys His Leu Leu Arg Glu Thr Phe Glu Asp Ser Asn Leu Ile Pro Lys		
450	455	460
Glu Ile Leu Trp Arg Pro Lys Glu Ala Phe Ser Asp Gly Ile Thr Ser		
465	470	475
Val Lys Asn Ser Trp Phe Lys Ile Leu Gln Glu Tyr Val Glu His Gln		
485	490	495
Val Asp Asp Ala Met Met Ala Asn Ala Ala Gln Lys Phe Pro Phe Asn		
500	505	510
Thr Pro Lys Thr Lys Glu Gly Tyr Tyr Tyr Arg Gln Val Phe Glu Arg		
515	520	525
His Tyr Pro Gly Arg Ala Asp Trp Leu Ser His Tyr Trp Met Pro Lys		

1342

530                      535                      540

Trp Ile Asn Ala Thr Asp Pro Ser Ala Arg Thr Leu Thr His Tyr Lys  
 545                      550                      555                      560

Ser Ala Val Lys Ala  
 565

&lt;210&gt; 1303

&lt;211&gt; 441

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1303

Arg Arg Arg Arg Ala Cys Arg Ser Ala Glu Gly Thr Gly Leu Arg Ser  
 1                      5                      10                      15

Leu Leu Leu Pro Pro Arg Leu Gln Leu Pro Ala Gly Pro Phe Ser Arg  
 20                      25                      30

Cys Arg Trp Asp Pro Val Ser Ser Pro Arg Pro Ser Thr Met Pro Pro  
 35                      40                      45

Lys Lys Gly Gly Asp Gly Ile Lys Pro Pro Pro Ile Ile Gly Arg Phe  
 50                      55                      60

Gly Thr Ser Leu Lys Ile Gly Ile Val Gly Leu Pro Asn Val Gly Lys  
 65                      70                      75                      80

Ser Thr Phe Phe Asn Val Leu Thr Asn Ser Gln Ala Ser Ala Glu Asn  
 85                      90                      95

Phe Pro Phe Cys Thr Ile Asp Pro Asn Glu Ser Arg Val Pro Val Pro  
 100                      105                      110

Asp Glu Arg Phe Asp Phe Leu Cys Gln Tyr His Lys Pro Ala Ser Lys  
 115                      120                      125

Ile Pro Ala Phe Leu Asn Val Val Asp Ile Ala Gly Leu Val Lys Gly  
 130                      135                      140

Ala His Asn Gly Gln Gly Leu Gly Asn Ala Phe Leu Ser His Ile Ser  
 145                      150                      155                      160

Ala Cys Asp Gly Ile Phe His Leu Thr Arg Ala Phe Glu Asp Asp Asp  
 165                      170                      175

Ile Thr His Val Glu Gly Ser Val Asp Pro Ile Arg Asp Ile Glu Ile  
 180                      185                      190

1343

Ile His Glu Glu Leu Gln Leu Lys Asp Glu Glu Met Ile Gly Pro Ile  
 195 200 205

Ile Asp Lys Leu Glu Lys Val Ala Val Arg Gly Gly Asp Lys Lys Leu  
 210 215 220

Lys Pro Glu Tyr Asp Ile Met Cys Lys Val Lys Ser Trp Val Ile Asp  
 225 230 235 240

Gln Lys Lys Pro Val Arg Phe Tyr His Asp Trp Asn Asp Lys Glu Ile  
 245 250 255

Glu Val Leu Asn Lys His Leu Phe Leu Thr Ser Lys Pro Met Val Tyr  
 260 265 270

Leu Val Asn Leu Ser Glu Lys Asp Tyr Ile Arg Lys Lys Asn Lys Trp  
 275 280 285

Leu Ile Lys Ile Lys Glu Trp Val Asp Lys Tyr Asp Pro Gly Ala Leu  
 290 295 300

Val Ile Pro Phe Ser Gly Ala Leu Glu Leu Lys Leu Gln Glu Leu Ser  
 305 310 315 320

Ala Glu Glu Arg Gln Lys Tyr Leu Glu Ala Asn Met Thr Gln Ser Ala  
 325 330 335

Leu Pro Lys Ile Ile Lys Ala Gly Phe Ala Ala Leu Gln Leu Glu Tyr  
 340 345 350

Phe Phe Thr Ala Gly Pro Asp Glu Val Arg Ala Trp Thr Ile Arg Lys  
 355 360 365

Gly Thr Lys Ala Pro Gln Ala Ala Gly Lys Ile His Thr Asp Phe Glu  
 370 375 380

Lys Gly Phe Ile Met Ala Glu Val Met Lys Tyr Glu Asp Phe Lys Glu  
 385 390 395 400

Glu Gly Ser Glu Asn Ala Val Lys Ala Ala Gly Lys Tyr Arg Gln Gln  
 405 410 415

Gly Arg Asn Tyr Ile Val Glu Asp Gly Asp Ile Ile Phe Phe Lys Phe  
 420 425 430

Asn Thr Pro Gln Gln Pro Lys Lys Lys  
 435 440

1344

&lt;210&gt; 1304

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1304

Glu Lys Lys Arg Gly Arg Glu Asp Lys Pro Gly Thr Met Ala Thr Phe  
1 5 10 15

Pro Pro Ala Thr Ser Ala Pro Gln Gln Pro Pro Gly Pro Glu Asp Glu  
20 25 30

Asp Ser Ser Leu Asp Glu Ser Asp Leu Tyr Ser Leu Ala His Ser Tyr  
35 40 45

Leu Gly Gly Gly Gly Arg Lys Gly Arg Thr Lys Arg Glu Ala Ala Ala  
50 55 60

Asn Thr Asn Arg Pro Ser Pro Gly Gly His Glu Arg Lys Leu Val Thr  
65 70 75 80

Lys Leu Gln Asn Ser Glu Arg Lys Lys Arg Gly Ala Arg Arg  
85 90

&lt;210&gt; 1305

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1305

Val Ile Leu Glu Met Val Ile Val Phe Cys Leu Val Thr Phe Ala Thr  
1 5 10 15

Val Pro Phe Lys Thr Met Trp Lys Pro Gln Val Cys Gly Gln His Arg  
20 25 30

Trp Asn Asp Ile Leu Cys Phe Leu Arg Leu Pro Ser Thr Arg His Ile  
35 40 45

Ser Leu Val Leu Gln Met Ser Ala Gln Val Leu Val Thr Ser Phe Ser  
50 55 60

Cys Cys Pro Gly Lys Ser Val Cys Ala Gly Ala Gly Ala Leu Ala Leu  
65 70 75 80

Phe Arg

1345

&lt;210&gt; 1306

&lt;211&gt; 231

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1306

Ala Arg Glu Met Ala Ala Gln Gln Arg Asp Cys Gly Gly Ala Ala Gln

1

5

10

15

Leu Ala Gly Pro Ala Ala Glu Ala Asp Pro Leu Gly Arg Phe Thr Cys

20

25

30

Pro Val Cys Leu Glu Val Tyr Glu Lys Pro Val Gln Val Pro Cys Gly

35

40

45

His Val Phe Cys Ser Ala Cys Leu Gln Glu Cys Leu Lys Pro Lys Lys

50

55

60

Pro Val Cys Gly Val Cys Arg Ser Ala Leu Ala Pro Gly Val Arg Ala

65

70

75

80

Val Glu Leu Glu Arg Gln Ile Glu Ser Thr Glu Thr Ser Cys His Gly

85

90

95

Cys Arg Lys Asn Phe Phe Leu Ser Lys Ile Arg Ser His Val Ala Thr

100

105

110

Cys Ser Lys Tyr Gln Asn Tyr Ile Met Glu Gly Val Lys Ala Thr Ile

115

120

125

Lys Asp Ala Ser Leu Gln Pro Arg Asn Val Pro Asn Arg Tyr Thr Phe

130

135

140

Pro Cys Pro Tyr Cys Pro Glu Lys Asn Phe Asp Gln Glu Gly Leu Val

145

150

155

160

Glu His Cys Lys Leu Phe His Ser Thr Asp Thr Lys Ser Val Val Cys

165

170

175

Pro Ile Cys Ala Ser Met Pro Trp Gly Asp Pro Asn Tyr Arg Ser Ala

180

185

190

Asn Phe Arg Glu His Ile Gln Arg Arg His Arg Phe Ser Tyr Asp Thr

195

200

205

Phe Val Asp Tyr Asp Val Asp Glu Glu Asp Met Met Asn Gln Val Leu

210

215

220

Gln Arg Ser Ile Ile Asp Gln

225

230

1346

&lt;210&gt; 1307

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1307

Gln Lys Gln Arg Thr Phe Trp Lys Tyr Tyr Tyr Asp Gly Lys Asp Tyr  
 1 5 10 15

Ile Glu Phe Asn Lys Glu Ile Pro Ala Trp Val Pro Phe Asp Pro Ala  
 20 25 30

Ala Gln Ile Thr Lys Gln Lys Trp Glu Ala Glu Pro Val Tyr Val Gln  
 35 40 45

Arg Ala Lys Ala Tyr Leu Glu Glu Glu Cys Pro Ala Thr Leu Arg Lys  
 50 55 60

Tyr Leu Lys Tyr Ser Lys Asn Ile Leu Asp Arg Gln Asp Pro Pro Ser  
 65 70 75 80

Val Val Val Thr Ser His Gln Ala Pro Gly Glu Lys Lys Lys Leu Lys  
 85 90 95

Cys Leu Ala Tyr Asp Phe Tyr Pro Gly Lys Ile Asp Val His Trp Thr  
 100 105 110

Arg Ala Gly Glu Val Gln Glu Pro Glu Leu Arg Gly Asp Val Leu His  
 115 120 125

Asn Gly Asn Gly Thr Tyr Gln Ser Trp Val Val Val Ala Val Pro Pro  
 130 135 140

Gln Asp Thr Ala Pro Tyr Ser Cys His Val Gln His Ser Ser Leu Ala  
 145 150 155 160

Gln Pro Leu Val Val Pro Trp Glu Ala Ser  
 165 170

&lt;210&gt; 1308

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1347

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1308

Cys Ser Cys Thr Val Arg Ala Arg Arg Arg Leu Asn Arg Gly Leu Arg  
 1 5 10 15

Arg Lys Gln His Ser Leu Leu Lys Arg Leu Arg Lys Ala Lys Lys Glu  
 20 25 30

Ala Pro Pro Met Glu Lys Pro Glu Val Val Lys Thr His Leu Arg Asp  
 35 40 45

Met Ile Ile Leu Pro Glu Met Val Gly Ser Met Val Gly Val Tyr Asn  
 50 55 60

Gly Lys Thr Phe Asn Gln Val Glu Ile Lys Pro Glu Met Ile Gly His  
 65 70 75 80

Tyr Leu Gly Glu Phe Ser Ile Thr Tyr Lys Pro Val Lys His Xaa Arg  
 85 90 95

Pro Gly Ile Gly Ala Thr His Xaa Ser Arg Phe Ile Pro Leu Lys  
 100 105 110

&lt;210&gt; 1309

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1309

Pro Val Ser Pro Gln Glu Arg Pro Pro Pro Tyr Leu Ala Val Pro Gly  
 1 5 10 15

His Gly Glu Glu Tyr Pro Val Ala Gly Ala His Ser Ser Pro Pro Lys  
 20 25 30

Ala Arg Phe Leu Arg Val Pro Ser Glu His Pro Tyr Leu Thr Pro Ser  
 35 40 45

Pro Glu Ser Pro Glu His Trp Ala Ser Pro Ser Pro Ser Leu Ser  
 50 55 60

Asp Trp Ser Glu Ser Thr Pro Ser Pro Ala Thr Ala Thr Gly Ala Met

٢

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<210> 1310
<211> 206
<212> PRT
<213> Homo sapiens
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<400> 1310
Gln Cys Pro Gly Arg Ala Gly Ala Pro Gln Thr Arg Ala Pro Arg Ala
  1              5              10              15

Arg Glu Arg Gly Gly Ala Met Ala Thr Ala Asn Gly Ala Val Glu Asn
      20              25              30

Gly Gln Pro Asp Arg Lys Pro Pro Ala Leu Pro Arg Pro Ile Arg Asn
      35              40              45

Leu Glu Val Lys Phe Thr Lys Ile Phe Ile Asn Asn Glu Trp His Glu
      50              55              60

Ser Lys Ser Gly Lys Lys Phe Ala Thr Cys Asn Pro Ser Thr Arg Glu
  65              70              75              80

Gln Ile Cys Glu Val Glu Glu Gly Asp Lys Pro Asp Val Asp Lys Ala
      85              90              95

Val Glu Ala Ala Gln Val Ala Phe Gln Arg Gly Ser Pro Trp Arg Arg
      100             105             110

Leu Asp Ala Leu Ser Arg Gly Arg Leu Leu His Gln Leu Ala Asp Leu
      115             120             125

Val Glu Arg Asp Arg Ala Thr Leu Ala Ala Leu Glu Thr Met Asp Thr
      130             135             140

Gly Lys Pro Phe Leu His Ala Phe Phe Ile Asp Leu Glu Gly Cys Ile
  145             150             155             160

Arg Thr Leu Arg Tyr Phe Ala Gly Trp Ala Asp Lys Ile Gln Gly Lys
      165             170             175

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1349

Thr Ile Pro Thr Asp Asp Asn Val Cys Ala Ser Pro Gly Met Ser Pro  
 180 185 190

Leu Val Ser Val Gly Pro Ser Leu His Gly Thr Ser Pro Cys  
 195 200 205

&lt;210&gt; 1311

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1311

Ser Trp Glu Thr Glu Lys Met Gln Thr Ala Gly Ala Leu Phe Ile Ser  
 1 5 10 15

Pro Ala Leu Ile Arg Cys Cys Thr Arg Gly Leu Ile Arg Pro Val Ser  
 20 25 30

Ala Ser Phe Leu Asn Ser Pro Val Asn Ser Ser Lys Gln Pro Ser Tyr  
 35 40 45

Ser Asn Phe Pro Leu Gln Val Ala Arg Arg Glu Phe Gln Thr Ser Val  
 50 55 60

Val Ser Arg Asp Ile Asp Thr Ala Ala Lys Phe Ile Gly Ala Gly Ala  
 65 70 75 80

Ala Thr Val Gly Val Ala Gly Ser Gly Ala Gly Ile Gly Thr Val Phe  
 85 90 95

Gly Ser Leu Ile Ile Gly Tyr Ala Arg Asn Pro Ser Leu Lys Gln Gln  
 100 105 110

Leu Phe Ser Tyr Ala Ile Leu Gly Phe Ala Leu Ser Glu Ala Met Gly  
 115 120 125

Leu Phe Cys Leu Met Val Ala Phe Leu Ile Leu Phe Ala Met  
 130 135 140

&lt;210&gt; 1312

&lt;211&gt; 495

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1350

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (392)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (460)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1312

Arg	Arg	Met	Glu	Gly	Gln	Asp	Glu	Val	Ser	Ala	Arg	Glu	Gln	His	Phe
1				5					10					15	

His	Ser	Gln	Val	Arg	Glu	Ser	Thr	Ile	Cys	Phe	Leu	Leu	Phe	Ala	Ile
		20					25					30			

Leu	Tyr	Val	Val	Ser	Tyr	Phe	Ile	Ile	Thr	Arg	Tyr	Lys	Arg	Lys	Ser
	35					40					45				

Asp	Glu	Gln	Glu	Asp	Glu	Asp	Ala	Ile	Val	Asn	Arg	Ile	Ser	Leu	Phe
	50				55					60					

Leu	Ser	Thr	Phe	Thr	Leu	Ala	Val	Ser	Ala	Gly	Ala	Val	Leu	Leu	Leu
65					70					75				80	

Pro	Phe	Ser	Ile	Ile	Ser	Asn	Glu	Ile	Leu	Leu	Ser	Phe	Pro	Gln	Asn
			85						90					95	

Tyr	Tyr	Ile	Gln	Trp	Leu	Asn	Gly	Ser	Leu	Ile	His	Gly	Leu	Trp	Asn
		100					105					110			

Leu	Ala	Ser	Leu	Phe	Ser	Asn	Leu	Xaa	Leu	Phe	Val	Leu	Met	Pro	Phe
	115					120					125				

Ala	Phe	Phe	Phe	Leu	Glu	Ser	Glu	Gly	Phe	Ala	Gly	Leu	Lys	Lys	Gly
	130					135					140				

Ile	Arg	Ala	Arg	Ile	Leu	Glu	Thr	Leu	Val	Met	Leu	Leu	Leu	Leu	Ala
145					150					155					160

Leu	Leu	Ile	Leu	Gly	Ile	Val	Trp	Val	Ala	Ser	Ala	Leu	Ile	Asp	Asn
			165					170						175	

Asp	Ala	Ala	Ser	Met	Glu	Ser	Leu	Tyr	Asp	Leu	Trp	Glu	Phe	Tyr	Leu
			180						185					190	

Pro	Tyr	Leu	Tyr	Ser	Cys	Ile	Ser	Leu	Met	Gly	Cys	Leu	Leu	Leu	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1351

195	200	205
Leu Cys Thr Pro Val Gly	Leu Ser Arg Met Phe Thr	Val Met Gly Gln
210	215	220
Leu Leu Val Lys Pro Thr	Ile Leu Glu Asp Leu Asp	Glu Gln Ile Tyr
225	230	235 240
Ile Ile Thr Leu Glu Glu Glu	Ala Leu Gln Arg Arg	Leu Asn Gly Leu
245	250	255
Ser Ser Ser Val Glu Tyr Asn	Ile Met Glu Leu Glu	Gln Glu Leu Glu
260	265	270
Asn Val Lys Thr Leu Lys Thr	Lys Leu Asp Pro Trp	Ser Ser Phe Ser
275	280	285
Val Leu Gln Ser Pro Val Trp	His Phe Ala Ala Gln	Thr Pro Ala Asp
290	295	300
Ile Val Ser Pro Asp Ser His	Phe Met Leu Ser Thr	Gln Gly Met Ser
305	310	315 320
Trp Ala Gln Leu Val Phe Leu	Leu Pro Ala Ser Arg	Pro Gly Asn Ser
325	330	335
Gln Asp Lys Arg Arg Lys Lys	Ala Ser Ala Trp Glu	Arg Asn Leu Val
340	345	350
Tyr Pro Ala Val Met Val Leu	Leu Leu Ile Glu Thr	Ser Ile Ser Val
355	360	365
Leu Leu Val Ala Cys Asn Ile	Leu Cys Leu Leu Val	Asp Glu Thr Ala
370	375	380
Met Pro Lys Gly Thr Arg Gly	Xaa Gly Ile Gly Asn	Ala Ser Leu Ser
385	390	395 400
Thr Phe Gly Phe Val Gly Ala	Ala Leu Glu Ile Ile	Leu Ile Phe Tyr
405	410	415
Leu Met Val Ser Ser Val Val	Gly Phe Tyr Ser Leu	Arg Phe Phe Gly
420	425	430
Asn Phe Thr Pro Lys Lys Asp	Asp Thr Thr Met Thr	Lys Ile Ile Gly
435	440	445
Asn Cys Val Ser Ile Leu Val	Leu Ser Ser Ala Xaa	Pro Val Met Ser
450	455	460
Arg Thr Leu Gly Leu His Lys	Leu His Leu Pro Asn	Thr Ser Arg Asp

1352

465                      470                      475                      480

Ser Glu Thr Ala Lys Pro Ser Val Asn Gly His Gln Lys Ala Leu  
                        485                      490                      495

<210> 1313  
<211> 790  
<212> PRT  
<213> Homo sapiens

<400> 1313

Gly Thr Arg Gly Thr Ala Thr Glu Arg Leu Lys Met Ile Pro Phe Leu  
   1                      5                        10                        15

Pro Met Phe Ser Leu Leu Leu Leu Leu Ile Val Asn Pro Ile Asn Ala  
                  20                        25                        30

Asn Asn His Tyr Asp Lys Ile Leu Ala His Ser Arg Ile Arg Gly Arg  
          35                        40                        45

Asp Gln Gly Pro Asn Val Cys Ala Leu Gln Gln Ile Leu Gly Thr Lys  
   50                        55                        60

Lys Lys Tyr Phe Ser Thr Cys Lys Asn Trp Tyr Lys Lys Ser Ile Cys  
   65                        70                        75                        80

Gly Gln Lys Thr Thr Val Leu Tyr Glu Cys Cys Pro Gly Tyr Met Arg  
                  85                        90                        95

Met Glu Gly Met Lys Gly Cys Pro Ala Val Leu Pro Ile Asp His Val  
          100                        105                        110

Tyr Gly Thr Leu Gly Ile Val Gly Ala Thr Thr Thr Gln Arg Tyr Ser  
          115                        120                        125

Asp Ala Ser Lys Leu Arg Glu Glu Ile Glu Gly Lys Gly Ser Phe Thr  
   130                        135                        140

Tyr Phe Ala Pro Ser Asn Glu Ala Trp Asp Asn Leu Asp Ser Asp Ile  
   145                        150                        155                        160

Arg Arg Gly Leu Glu Ser Asn Val Asn Val Glu Leu Leu Asn Ala Leu  
          165                        170                        175

His Ser His Met Ile Asn Lys Arg Met Leu Thr Lys Asp Leu Lys Asn  
          180                        185                        190

Gly Met Ile Ile Pro Ser Met Tyr Asn Asn Leu Gly Leu Phe Ile Asn  
   195                        200                        205

1353

His Tyr Pro Asn Gly Val Val Thr Val Asn Cys Ala Arg Ile Ile His  
 210 215 220

Gly Asn Gln Ile Ala Thr Asn Gly Val Val His Val Ile Asp Arg Val  
 225 230 235 240

Leu Thr Gln Ile Gly Thr Ser Ile Gln Asp Phe Ile Glu Ala Glu Asp  
 245 250 255

Asp Leu Ser Ser Phe Arg Ala Ala Ala Ile Thr Ser Asp Ile Leu Glu  
 260 265 270

Ala Leu Gly Arg Asp Gly His Phe Thr Leu Phe Ala Pro Thr Asn Glu  
 275 280 285

Ala Phe Glu Lys Leu Pro Arg Gly Val Leu Glu Arg Ile Met Gly Asp  
 290 295 300

Lys Val Ala Ser Glu Ala Leu Met Lys Tyr His Ile Leu Asn Thr Leu  
 305 310 315 320

Gln Cys Ser Glu Ser Ile Met Gly Gly Ala Val Phe Glu Thr Leu Glu  
 325 330 335

Gly Asn Thr Ile Glu Ile Gly Cys Asp Gly Asp Ser Ile Thr Val Asn  
 340 345 350

Gly Ile Lys Met Val Asn Lys Lys Asp Ile Val Thr Asn Asn Gly Val  
 355 360 365

Ile His Leu Ile Asp Gln Val Leu Ile Pro Asp Ser Ala Lys Gln Val  
 370 375 380

Ile Glu Leu Ala Gly Lys Gln Gln Thr Thr Phe Thr Asp Leu Val Ala  
 385 390 395 400

Gln Leu Gly Leu Ala Ser Ala Leu Arg Pro Asp Gly Glu Tyr Thr Leu  
 405 410 415

Leu Ala Pro Val Asn Asn Ala Phe Ser Asp Asp Thr Leu Ser Met Asp  
 420 425 430

Gln Arg Leu Leu Lys Leu Ile Leu Gln Asn His Ile Leu Lys Val Lys  
 435 440 445

Val Gly Leu Asn Glu Leu Tyr Asn Gly Gln Ile Leu Glu Thr Ile Gly  
 450 455 460

Gly Lys Gln Leu Arg Val Phe Val Tyr Arg Thr Ala Val Cys Ile Glu  
 465 470 475 480

1354

Asn Ser Cys Met Glu Lys Gly Ser Lys Gln Gly Arg Asn Gly Ala Ile	485	490	495
His Ile Phe Arg Glu Ile Ile Lys Pro Ala Glu Lys Ser Leu His Glu	500	505	510
Lys Leu Lys Gln Asp Lys Arg Phe Ser Thr Phe Leu Ser Leu Leu Glu	515	520	525
Ala Ala Asp Leu Lys Glu Leu Leu Thr Gln Pro Gly Asp Trp Thr Leu	530	535	540
Phe Val Pro Thr Asn Asp Ala Phe Lys Gly Met Thr Ser Glu Glu Lys	545	550	555
Glu Ile Leu Ile Arg Asp Lys Asn Ala Leu Gln Asn Ile Ile Leu Tyr	565	570	575
His Leu Thr Pro Gly Val Phe Ile Gly Lys Gly Phe Glu Pro Gly Val	580	585	590
Thr Asn Ile Leu Lys Thr Thr Gln Gly Ser Lys Ile Phe Leu Lys Glu	595	600	605
Val Asn Asp Thr Leu Leu Val Asn Glu Leu Lys Ser Lys Glu Ser Asp	610	615	620
Ile Met Thr Thr Asn Gly Val Ile His Val Val Asp Lys Leu Leu Tyr	625	630	635
Pro Ala Asp Thr Pro Val Gly Asn Asp Gln Leu Leu Glu Ile Leu Asn	645	650	655
Lys Leu Ile Lys Tyr Ile Gln Ile Lys Phe Val Arg Gly Ser Thr Phe	660	665	670
Lys Glu Ile Pro Val Thr Val Tyr Lys Pro Ile Ile Lys Lys Tyr Thr	675	680	685
Lys Ile Ile Asp Gly Val Pro Val Glu Ile Thr Glu Lys Glu Thr Arg	690	695	700
Glu Glu Arg Ile Ile Thr Gly Pro Glu Ile Lys Tyr Thr Arg Ile Ser	705	710	715
Thr Gly Gly Gly Glu Thr Glu Glu Thr Leu Lys Lys Leu Leu Gln Glu	725	730	735
Glu Val Thr Lys Val Thr Lys Phe Ile Glu Gly Gly Asp Gly His Leu	740	745	750

1355

Phe Glu Asp Glu Glu Ile Lys Arg Leu Leu Gln Gly Asp Thr Pro Val  
           755                    760                    765

Arg Lys Leu Gln Ala Asn Lys Lys Val Gln Gly Ser Arg Arg Arg Leu  
      770                    775                    780

Arg Glu Gly Arg Ser Gln  
 785                    790

&lt;210&gt; 1314

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1314

Thr Ser Trp Ala Phe Asp Glu Thr Gly Xaa Asn Thr Ala Val Phe Leu  
   1                    5                    10                    15

Leu Glu Ile Xaa Trp Gly Ile Phe Phe Glu Leu Met Gly Thr Ile Arg  
           20                    25                    30

His Asn Cys Leu His Lys Leu Gly Ile Xaa Asp Phe Gly Ile Thr Ile  
      35                    40                    45

Tyr Gln Asn Gly Asp Ile Ser Pro Leu Val Leu Arg Cys Lys Pro Lys  
   50                    55                    60

Asn Ile Met Thr Ser Phe Gln Ala Ser  
   65                    70

&lt;210&gt; 1315

1356

&lt;211&gt; 268

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1315

Pro Gly Arg Pro Thr Arg Pro Arg Thr Arg Gly Ile Asn Lys Leu Ile  
 1 5 10 15

Arg Ile Gly Arg Asn Glu Cys Val Val Val Ile Arg Val Asp Lys Glu  
 20 25 30

Lys Gly Tyr Ile Asp Leu Ser Lys Arg Arg Val Ser Pro Glu Glu Ala  
 35 40 45

Ile Lys Cys Glu Asp Lys Phe Thr Lys Ser Lys Thr Val Tyr Ser Ile  
 50 55 60

Leu Arg His Val Ala Glu Val Leu Glu Tyr Thr Lys Asp Glu Gln Leu  
 65 70 75 80

Glu Ser Leu Phe Gln Arg Thr Ala Trp Val Phe Asp Asp Lys Tyr Lys  
 85 90 95

Arg Pro Gly Tyr Gly Ala Tyr Asp Ala Phe Lys His Ala Val Ser Asp  
 100 105 110

Pro Ser Ile Leu Asp Ser Leu Asp Leu Asn Glu Asp Glu Arg Glu Val  
 115 120 125

Leu Ile Asn Asn Ile Asn Arg Arg Leu Thr Pro Gln Ala Val Lys Ile  
 130 135 140

Arg Ala Asp Ile Glu Val Ala Cys Tyr Gly Tyr Glu Gly Ile Asp Ala  
 145 150 155 160

Val Lys Glu Ala Leu Arg Ala Gly Leu Asn Cys Ser Thr Glu Asn Met  
 165 170 175

Pro Ile Lys Ile Asn Leu Ile Ala Pro Pro Arg Tyr Val Met Thr Thr  
 180 185 190

Thr Thr Leu Glu Arg Thr Glu Gly Leu Ser Val Leu Ser Gln Ala Met  
 195 200 205

Ala Val Ile Lys Glu Lys Ile Glu Glu Lys Arg Gly Val Phe Asn Val  
 210 215 220

Gln Met Glu Pro Lys Val Val Thr Asp Thr Asp Glu Thr Glu Leu Ala  
 225 230 235 240

Arg Gln Met Glu Arg Leu Glu Arg Glu Asn Ala Glu Val Asp Gly Asp



1357

	245		250		255
Asp Asp Ala Glu Glu Met Glu Ala Lys Ala Glu Asp					
	260		265		
<210> 1316					
<211> 315					
<212> PRT					
<213> Homo sapiens					
<400> 1316					
Gly Gln Arg Ala Gly Met Pro His Ala Gln Gly Gly Trp Ser Gly Pro					
1	5		10		15
Ala Ala Asp Ser Ala Glu Pro Ala Leu Pro Ala Gly Glu Pro Gly Gly					
	20		25		30
Pro Thr Leu Met Arg Leu Asn Ser Val Gln Ser Ser Glu Arg Pro Leu					
	35		40		45
Phe Leu Val His Pro Ile Glu Gly Ser Thr Thr Val Phe His Ser Leu					
	50		55		60
Ala Ser Arg Leu Ser Ile Pro Thr Tyr Gly Leu Gln Cys Thr Arg Ala					
	65		70		75
Ala Pro Leu Asp Ser Ile His Ser Leu Ala Ala Tyr Tyr Ile Asp Cys					
	85		90		95
Ile Arg Gln Val Gln Pro Glu Gly Pro Tyr Arg Val Ala Gly Tyr Ser					
	100		105		110
Tyr Gly Ala Cys Val Ala Phe Glu Met Cys Ser Gln Leu Gln Ala Gln					
	115		120		125
Gln Ser Pro Ala Pro Thr His Asn Ser Leu Phe Leu Phe Asp Gly Ser					
	130		135		140
Pro Thr Tyr Val Leu Ala Tyr Thr Gln Ser Tyr Arg Ala Lys Leu Thr					
	145		150		155
Pro Gly Cys Glu Ala Glu Ala Glu Thr Glu Ala Ile Cys Phe Phe Val					
	165		170		175
Gln Gln Phe Thr Asp Met Glu His Asn Arg Val Leu Glu Ala Leu Leu					
	180		185		190
Pro Leu Lys Gly Leu Glu Glu Arg Val Ala Ala Ala Val Asp Leu Ile					
	195		200		205

1358

Ile Lys Ser His Gln Gly Leu Asp Arg Gln Glu Leu Ser Phe Ala Ala  
210 215 220

Arg Ser Phe Tyr Tyr Lys Leu Arg Ala Ala Glu Gln Tyr Thr Pro Lys  
225 230 235 240

Ala Lys Tyr His Gly Asn Val Met Leu Leu Arg Ala Lys Thr Gly Gly  
245 250 255

Ala Tyr Gly Glu Asp Leu Gly Ala Asp Tyr Asn Leu Ser Gln Val Cys  
260 265 270

Asp Gly Lys Val Ser Val His Val Ile Glu Gly Asp His Arg Thr Leu  
275 280 285

Leu Glu Gly Ser Gly Leu Glu Ser Ile Ile Ser Ile Ile His Ser Ser  
290 295 300

Leu Ala Glu Pro Arg Val Ser Val Arg Glu Gly  
305 310 315

<210> 1317

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1359

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (186)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1317

Thr	Thr	Xaa	Val	Xaa	Asp	Arg	Leu	Leu	Xaa	Thr	Ser	Gly	Ser	Pro	Gly
1				5					10					15	

Thr	Asp	Arg	Xaa	Phe	Gly	His	Glu	Xaa	Glu	Met	Ala	Pro	Asn	Ala	Ser
			20					25						30	

Cys	Leu	Cys	Val	His	Val	Arg	Ser	Glu	Glu	Trp	Asp	Leu	Met	Thr	Phe
		35					40					45			

Asp	Ala	Asn	Pro	Tyr	Asp	Ser	Val	Lys	Lys	Ile	Lys	Glu	His	Val	Arg
	50					55					60				

Ser	Lys	Thr	Lys	Val	Pro	Val	Gln	Asp	Gln	Val	Leu	Leu	Leu	Gly	Ser
65					70					75					80

Lys	Ile	Leu	Lys	Pro	Arg	Arg	Ser	Leu	Ser	Ser	Tyr	Gly	Ile	Asp	Lys
			85						90					95	

Glu	Lys	Thr	Ile	His	Leu	Thr	Leu	Lys	Val	Val	Lys	Pro	Ser	Asp	Glu
			100					105						110	

Glu	Leu	Pro	Leu	Phe	Leu	Val	Glu	Ser	Gly	Asp	Glu	Ala	Lys	Arg	His
		115					120					125			

Leu	Leu	Gln	Val	Arg	Arg	Ser	Ser	Ser	Val	Ala	Gln	Val	Lys	Ala	Met
	130					135					140				

Ile	Glu	Thr	Lys	Thr	Gly	Ile	Ile	Pro	Glu	Thr	Gln	Ile	Val	Thr	Cys
145					150					155					160

Asn	Gly	Lys	Arg	Leu	Glu	Asp	Gly	Lys	Met	Met	Ala	Asp	Tyr	Gly	Ile
			165					170						175	

Arg	Lys	Gly	Asn	Leu	Leu	Phe	Leu	Ala	Xaa	Tyr	Cys	Ile	Gly	Gly	
			180					185						190	

&lt;210&gt; 1318

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1360

&lt;400&gt; 1318

Arg Asn Leu Gln Glu Thr Ala Ile Met Ala Glu Lys Pro Lys Leu His  
 1 5 10 15  
 Tyr Phe Asn Ala Arg Gly Arg Met Glu Ser Thr Arg Trp Leu Leu Ala  
 20 25 30  
 Ala Ala Gly Val Glu Phe Glu Glu Lys Phe Ile Lys Ser Ala Glu Asp  
 35 40 45  
 Leu Asp Lys Leu Arg Asn Asp Gly Tyr Leu Met Phe Gln Gln Val Pro  
 50 55 60  
 Met Val Glu Ile Asp Gly Met Lys Leu Val Gln Thr Arg Ala Ile Leu  
 65 70 75 80  
 Asn Tyr Ile Ala Ser Lys Tyr Asn Leu Tyr Gly Lys Asp Ile Lys Glu  
 85 90 95  
 Arg Ala Leu Ile Asp Met Tyr Ile Glu Gly Ile Ala Asp Leu Gly Glu  
 100 105 110  
 Met Ile Leu Leu Leu Pro Val Cys Pro Pro Glu Glu Lys Asp Ala Lys  
 115 120 125  
 Leu Ala Leu Ile Lys Glu Lys Ile Lys Asn Arg Tyr Phe Pro Ala Phe  
 130 135 140  
 Glu Lys Val Leu Lys Ser His Gly Gln Asp Tyr Leu Val Gly Asn Lys  
 145 150 155 160  
 Leu Ser Arg Ala Asp Ile His Leu Val Glu Leu Leu Tyr Tyr Val Glu  
 165 170 175  
 Glu Leu Asp Ser Ser Leu Ile Ser Ser Phe Pro Leu Leu Lys Ala Leu  
 180 185 190  
 Lys Thr Arg Ile Ser Asn Leu Pro Thr Val Lys Lys Phe Leu Gln Pro  
 195 200 205  
 Gly Ser Pro Arg Lys Pro Pro Met Asp Glu Lys Ser Leu Glu Glu Ala  
 210 215 220  
 Arg Lys Ile Phe Arg Phe  
 225 230

&lt;210&gt; 1319

&lt;211&gt; 279

1361

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1319

Glu Gly Pro Ala Glu Gly Asn Met Ala Ala Lys Val Phe Glu Ser Ile  
 1 5 10 15  
 Gly Lys Phe Gly Leu Ala Leu Ala Val Ala Gly Gly Val Val Asn Ser  
 20 25 30  
 Ala Leu Tyr Asn Val Asp Ala Gly His Arg Ala Val Ile Phe Asp Arg  
 35 40 45  
 Phe Arg Gly Val Gln Asp Ile Val Val Gly Glu Gly Thr His Phe Leu  
 50 55 60  
 Ile Pro Trp Val Gln Lys Pro Ile Ile Phe Asp Cys Arg Ser Arg Pro  
 65 70 75 80  
 Arg Asn Val Pro Val Ile Thr Gly Ser Lys Asp Leu Gln Asn Val Asn  
 85 90 95  
 Ile Thr Leu Arg Ile Leu Phe Arg Pro Val Ala Ser Gln Leu Pro Arg  
 100 105 110  
 Ile Phe Thr Ser Ile Gly Glu Asp Tyr Asp Glu Arg Val Leu Pro Ser  
 115 120 125  
 Ile Thr Thr Glu Ile Leu Lys Ser Val Val Ala Arg Phe Asp Ala Gly  
 130 135 140  
 Glu Leu Ile Thr Gln Arg Glu Leu Val Ser Arg Gln Val Ser Asp Asp  
 145 150 155 160  
 Leu Thr Glu Arg Ala Ala Thr Phe Gly Leu Ile Leu Asp Asp Val Ser  
 165 170 175  
 Leu Thr His Leu Thr Phe Gly Lys Glu Phe Thr Glu Ala Val Glu Ala  
 180 185 190  
 Lys Gln Val Ala Gln Gln Glu Ala Glu Arg Ala Arg Phe Val Val Glu  
 195 200 205  
 Lys Ala Glu Gln Gln Lys Lys Ala Ala Ile Ile Ser Ala Glu Gly Asp  
 210 215 220  
 Ser Lys Ala Ala Glu Leu Ile Ala Asn Ser Leu Ala Thr Ala Gly Asp  
 225 230 235 240  
 Gly Leu Ile Glu Leu Arg Lys Leu Glu Ala Ala Glu Asp Ile Ala Tyr  
 245 250 255

1362

Gln Leu Ser Arg Ser Arg Asn Ile Thr Tyr Leu Pro Ala Gly Gln Ser  
 260 265 270

Val Leu Leu Gln Leu Pro Gln  
 275

<210> 1320

<211> 406

<212> PRT

<213> Homo sapiens

<400> 1320

Val Thr Ala Cys Ala Ala Pro Ala Ala Trp Leu Pro Ile Leu Val Ala  
 1 5 10 15

Asp Ile Trp Ser Ser Tyr Asn Met Ala Asp Ile Asp Asn Lys Glu Gln  
 20 25 30

Ser Glu Leu Asp Gln Asp Leu Asp Asp Val Glu Glu Val Glu Glu Glu  
 35 40 45

Glu Thr Gly Glu Glu Thr Lys Leu Lys Ala Arg Gln Leu Thr Val Gln  
 50 55 60

Met Met Gln Asn Pro Gln Ile Leu Ala Ala Leu Gln Glu Arg Leu Asp  
 65 70 75 80

Gly Leu Val Glu Thr Pro Thr Gly Tyr Ile Glu Ser Leu Pro Arg Val  
 85 90 95

Val Lys Arg Arg Val Asn Ala Leu Lys Asn Leu Gln Val Lys Cys Ala  
 100 105 110

Gln Ile Glu Ala Lys Phe Tyr Glu Glu Val His Asp Leu Glu Arg Lys  
 115 120 125

Tyr Ala Val Leu Tyr Gln Pro Leu Phe Asp Lys Arg Phe Glu Ile Ile  
 130 135 140

Asn Ala Ile Tyr Glu Pro Thr Glu Glu Glu Cys Glu Trp Lys Pro Asp  
 145 150 155 160

Glu Glu Asp Glu Ile Ser Glu Glu Leu Lys Glu Lys Ala Lys Ile Glu  
 165 170 175

Asp Glu Lys Lys Asp Glu Glu Lys Glu Asp Pro Lys Gly Ile Pro Glu  
 180 185 190

1363

Phe Trp Leu Thr Val Phe Lys Asn Val Asp Leu Leu Ser Asp Met Val  
 195 200 205  
 Gln Glu His Asp Glu Pro Ile Leu Lys His Leu Lys Asp Ile Lys Val  
 210 215 220  
 Lys Phe Ser Asp Ala Gly Gln Pro Met Ser Phe Val Leu Glu Phe His  
 225 230 235 240  
 Phe Glu Pro Asn Glu Tyr Phe Thr Asn Glu Val Leu Thr Lys Thr Tyr  
 245 250 255  
 Arg Met Arg Ser Glu Pro Asp Asp Ser Asp Pro Phe Ser Phe Asp Gly  
 260 265 270  
 Pro Glu Ile Met Gly Cys Thr Gly Cys Gln Ile Asp Trp Lys Lys Gly  
 275 280 285  
 Lys Asn Val Thr Leu Lys Thr Ile Lys Lys Lys Gln Lys His Lys Gly  
 290 295 300  
 Arg Gly Thr Val Arg Thr Val Thr Lys Thr Val Ser Asn Asp Ser Phe  
 305 310 315 320  
 Phe Asn Phe Phe Ala Pro Pro Glu Val Pro Glu Ser Gly Asp Leu Asp  
 325 330 335  
 Asp Asp Ala Glu Ala Ile Leu Ala Ala Asp Phe Glu Ile Gly His Phe  
 340 345 350  
 Leu Arg Glu Arg Ile Ile Pro Arg Ser Val Leu Tyr Phe Thr Gly Glu  
 355 360 365  
 Ala Ile Glu Asp Asp Asp Asp Asp Tyr Asp Glu Glu Gly Glu Glu Ala  
 370 375 380  
 Asp Glu Gly Tyr Gln Leu Phe Glu Glu Val Lys Ser Cys Ser Lys Leu  
 385 390 395 400  
 Phe Gln Arg Trp Leu Gln  
 405

&lt;210&gt; 1321

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1364

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1321

Gln Ser Ala Cys Ser Leu Leu Pro Glu Met Pro Arg Ile Leu Thr Arg  
 1 5 10 15

Thr Pro Ser Ser Arg Met Ile Val Leu Arg Leu Met Pro Val Gly Gly  
 20 25 30

Arg Arg Pro Ile Val Thr Ser Phe Gly Gly Cys Ser Thr Ala Pro Arg  
 35 40 45

Ala Asn Phe Pro Leu Pro Xaa Pro Ala Leu Arg Gln Ser Arg Ser Lys  
 50 55 60

Met Ala Val Val Gly Val Ser Ser Val Ser Arg Leu Leu Gly Arg Ser  
 65 70 75 80

Arg Pro Gln Leu Gly Arg Pro Met Ser Ser Gly Ala His Gly Glu Glu  
 85 90 95

Gly Ser Ala Arg Met Trp Lys Thr Leu Thr Phe Phe Val Ala Leu Pro  
 100 105 110

Gly Val Ala Val Ser Met Leu Asn Val Tyr Leu Lys Ser His His Gly  
 115 120 125

Glu His Glu Arg Pro Glu Phe Ile Ala Tyr Pro His Leu Arg Ile Arg  
 130 135 140

Thr Lys Pro Phe Pro Trp Gly Asp Gly Asn His Thr Leu Phe His Asn  
 145 150 155 160

Pro His Val Asn Pro Leu Pro Thr Gly Tyr Glu Asp Glu  
 165 170

&lt;210&gt; 1322

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1322

Lys Thr Gln Ala Ala Ser Val Glu Ala Val Lys Met Leu Asp Glu Ile  
 1 5 10 15

Leu Leu Gln Leu Ser Ala Ser Val Pro Val Asp Val Met Pro Gly Glu  
 20 25 30



1365

Phe Asp Pro Thr Asn Tyr Thr Leu Pro Gln Gln Pro Leu His Pro Cys  
           35                          40                          45  
 Met Phe Pro Leu Ala Thr Ala Tyr Ser Thr Leu Gln Leu Val Thr Asn  
           50                          55                          60  
 Pro Tyr Gln Ala Thr Ile Asp Gly Val Arg Phe Leu Gly Thr Ser Gly  
           65                          70                          75                          80  
 Gln Asn Val Ser Asp Ile Phe Arg Tyr Ser Ser Met Glu Asp His Leu  
                           85                          90                          95  
 Glu Ile Leu Glu Trp Thr Leu Arg Val Arg His Ile Ser Pro Thr Ala  
                           100                          105                          110  
 Pro Asp Thr Leu Gly Cys Tyr Pro Phe Tyr Lys Thr Asp Pro Phe Ile  
           115                          120                          125  
 Phe Pro Glu Cys Pro His Val Tyr Phe Cys Gly Asn Thr Pro Ser Phe  
           130                          135                          140  
 Gly Ser Lys Ile Ile Arg Gly Pro Glu Asp Gln Thr Val Leu Leu Val  
           145                          150                          155                          160  
 Thr Val Pro Asp Phe Ser Ala Thr Gln Thr Ala Cys Leu Val Asn Leu  
                           165                          170                          175  
 Arg Ser Leu Ala Cys Gln Pro Ile Ser Phe Ser Gly Phe Gly Ala Glu  
                           180                          185                          190  
 Asp Asp Asp Leu Gly Gly Leu Gly Trp Ala Pro Asp Ser Lys Lys Trp  
           195                          200                          205  
 Phe

&lt;210&gt; 1323

&lt;211&gt; 291

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (57)

1366

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1323

Asn	Asn	Val	Ala	Thr	Thr	His	Glu	Pro	Ala	Ser	Val	Pro	Ala	Pro	Gln
1				5				10						15	
Gly	Asp	Leu	Leu	Ser	Gly	Ala	Glu	Pro	Glu	Gly	Gly	Asn	Xaa	Ala	Arg
		20					25						30		
Arg	Pro	Pro	Gly	Ala	Arg	Glu	Gln	Pro	Gln	Ser	Pro	Pro	Pro	Ala	Arg
		35					40					45			
Gly	Gly	Ala	Gly	Ser	Leu	Ala	Thr	Xaa	Ala	Pro	Pro	Ser	Ser	Gly	Leu
	50					55					60				
Ser	Cys	Pro	Gly	Cys	Phe	Arg	Leu	Arg	Leu	Trp	Met	Leu	Arg	Leu	Ser
65				70					75					80	
Glu	Arg	Asn	Met	Lys	Val	Leu	Leu	Ala	Ala	Ala	Leu	Ile	Ala	Gly	Ser
			85						90					95	
Val	Phe	Phe	Leu	Leu	Leu	Pro	Gly	Pro	Ser	Ala	Ala	Asp	Glu	Lys	Lys
		100					105						110		
Lys	Gly	Pro	Lys	Val	Thr	Val	Lys	Val	Tyr	Phe	Asp	Leu	Arg	Ile	Gly
	115						120					125			
Asp	Glu	Asp	Val	Gly	Arg	Val	Ile	Phe	Gly	Leu	Phe	Gly	Lys	Thr	Val
	130					135					140				
Pro	Lys	Thr	Val	Asp	Asn	Phe	Val	Ala	Leu	Ala	Thr	Gly	Glu	Lys	Gly
145					150					155				160	
Phe	Gly	Tyr	Lys	Asn	Ser	Lys	Phe	His	Arg	Val	Ile	Lys	Asp	Phe	Met
			165						170					175	
Ile	Gln	Gly	Gly	Asp	Phe	Thr	Arg	Gly	Asp	Gly	Thr	Gly	Gly	Lys	Ser
		180						185					190		
Ile	Tyr	Gly	Glu	Arg	Phe	Pro	Asp	Glu	Asn	Phe	Lys	Leu	Lys	His	Tyr
	195						200					205			
Gly	Pro	Gly	Trp	Val	Ser	Met	Ala	Asn	Ala	Gly	Lys	Asp	Thr	Asn	Gly
	210					215					220				
Ser	Gln	Phe	Phe	Ile	Thr	Thr	Val	Lys	Thr	Ala	Trp	Leu	Asp	Gly	Lys
225				230						235				240	
His	Val	Val	Phe	Gly	Lys	Val	Leu	Glu	Gly	Met	Glu	Val	Val	Arg	Lys
			245						250					255	

1367

Val Glu Ser Thr Lys Thr Asp Ser Arg Asp Lys Pro Leu Lys Asp Val  
 260 265 270

Ile Ile Ala Asp Cys Gly Lys Ile Glu Val Glu Lys Pro Phe Ala Ile  
 275 280 285

Ala Lys Glu  
 290

&lt;210&gt; 1324

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1324

Glu Cys Leu Val Arg Ser Lys Asn Ile Thr Gln Ile Val Gly His Ser  
 1 5 10 15

Gly Cys Glu Ala Lys Ser Ile Gln Asn Arg Ala Cys Leu Gly Gln Cys  
 20 25 30

Phe Ser Tyr Ser Val Pro Asn Thr Phe Pro Gln Ser Thr Glu Ser Leu  
 35 40 45

Val His Cys Asp Ser Cys Met Pro Ala Gln Ser Met Trp Glu Ile Val  
 50 55 60

Thr Leu Glu Cys Pro Gly His Glu Glu Val Pro Arg Val Asp Lys Leu  
 65 70 75 80

Val Glu Lys Ile Leu His Cys Ser Cys Gln Ala Cys Gly Lys Glu Pro  
 85 90 95

Ser His Glu Gly Leu Ser Val Tyr Val Gln Gly Glu Asp Gly Pro Gly  
 100 105 110

Ser Gln Pro Gly Thr His Pro His Pro His Pro His Pro His Pro Gly  
 115 120 125

Gly Gln Thr Pro Glu Pro Glu Asp Pro Pro Gly Ala Pro His Thr Glu  
 130 135 140

Glu Glu Gly Ala Glu Asp  
 145 150

&lt;210&gt; 1325

&lt;211&gt; 56

1368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1325

Glu Ile Asn Ile Ser Arg Lys Gly Glu Ser Arg Phe Tyr Lys Met Ser  
1 5 10 15

Gln Leu Ser Asn Ile Trp Gly Ser Asp Ser Phe Phe Val Arg Thr Phe  
20 25 30

Glu Thr Ser Lys Gln Pro Leu Phe Leu Lys Asn Ser Gly Phe Thr Leu  
35 40 45

Thr His Val Ser Phe Thr Pro Phe  
50 55

&lt;210&gt; 1326

&lt;211&gt; 486

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (438)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (447)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1326

Arg Leu Pro Leu Gly Ser Arg Ser Pro Ser Glu Ala Ala Gly Ala Glu  
1 5 10 15

Thr Ala Pro Ser Ser Leu Ser Ala Ala Met Thr Pro Leu Val Ser Arg  
20 25 30

Leu Xaa Arg Leu Trp Ala Ile Met Arg Lys Pro Arg Ala Ala Val Gly  
35 40 45

Ser Gly His Arg Lys Gln Ala Ala Ser Gln Glu Gly Arg Gln Lys His  
50 55 60

1369

Ala Lys Asn Asn Ser Gln Ala Lys Pro Ser Ala Cys Asp Gly Leu Ala  
 65 70 75 80  
 Arg Gln Pro Glu Glu Val Val Leu Gln Ala Ser Val Ser Ser Tyr His  
 85 90 95  
 Leu Phe Arg Asp Val Ala Glu Val Thr Ala Phe Arg Gly Ser Leu Leu  
 100 105 110  
 Ser Trp Tyr Asp Gln Glu Lys Arg Asp Leu Pro Trp Arg Arg Arg Ala  
 115 120 125  
 Glu Asp Glu Met Asp Leu Asp Arg Arg Ala Tyr Ala Val Trp Val Ser  
 130 135 140  
 Glu Val Met Leu Gln Gln Thr Gln Val Ala Thr Val Ile Asn Tyr Tyr  
 145 150 155 160  
 Thr Gly Trp Met Gln Lys Trp Pro Thr Leu Gln Asp Leu Ala Ser Ala  
 165 170 175  
 Ser Leu Glu Glu Val Asn Gln Leu Trp Ala Gly Leu Gly Tyr Tyr Ser  
 180 185 190  
 Arg Gly Arg Arg Leu Gln Glu Gly Ala Arg Lys Val Val Glu Glu Leu  
 195 200 205  
 Gly Gly His Met Pro Arg Thr Ala Glu Thr Leu Gln Gln Leu Leu Pro  
 210 215 220  
 Gly Val Gly Arg Tyr Thr Ala Gly Ala Ile Ala Ser Ile Ala Phe Gly  
 225 230 235 240  
 Gln Ala Thr Gly Val Val Asp Gly Asn Val Ala Arg Val Leu Cys Arg  
 245 250 255  
 Val Arg Ala Ile Gly Ala Asp Pro Ser Ser Thr Leu Val Ser Gln Gln  
 260 265 270  
 Leu Trp Gly Leu Ala Gln Gln Leu Val Asp Pro Ala Arg Pro Gly Asp  
 275 280 285  
 Phe Asn Gln Ala Ala Met Glu Leu Gly Ala Thr Val Cys Thr Pro Gln  
 290 295 300  
 Arg Pro Leu Cys Ser Gln Cys Pro Val Glu Ser Leu Cys Arg Ala Arg  
 305 310 315 320  
 Gln Arg Val Glu Gln Glu Gln Leu Leu Ala Ser Gly Ser Leu Ser Gly  
 325 330 335

1370

Ser Pro Asp Val Glu Glu Cys Ala Pro Asn Thr Gly Gln Cys His Leu  
 340 345 350  
 Cys Leu Pro Pro Ser Glu Pro Trp Asp Gln Thr Leu Gly Val Val Asn  
 355 360 365  
 Phe Pro Arg Lys Ala Ser Arg Lys Pro Pro Arg Glu Glu Ser Ser Ala  
 370 375 380  
 Thr Cys Val Leu Glu Gln Pro Gly Ala Leu Gly Ala Gln Ile Leu Leu  
 385 390 395 400  
 Val Gln Arg Pro Asn Ser Gly Leu Leu Ala Gly Leu Trp Glu Phe Pro  
 405 410 415  
 Ser Val Thr Trp Glu Pro Ser Glu Gln Leu Gln Arg Lys Ala Leu Leu  
 420 425 430  
 Gln Glu Leu Gln Arg Xaa Ala Gly Pro Leu Pro Ala Thr His Xaa Arg  
 435 440 445  
 His Leu Gly Glu Val Val His Thr Phe Ser His Ile Lys Leu Thr Tyr  
 450 455 460  
 Gln Val Tyr Gly Leu Ala Leu Glu Gly Gln Thr Pro Val Thr Thr Val  
 465 470 475 480  
 Pro Pro Gly Ala Arg Cys  
 485

&lt;210&gt; 1327

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1327

Lys Thr Leu Phe Thr Tyr Ser Phe His Gly Tyr Asn Thr Leu Ala Asp  
 1 5 10 15  
 Phe Leu Leu Ala Leu Gly Ala Met Ile Leu Ile Thr Phe Cys Lys Val  
 20 25 30  
 Thr Asn Val Ile His Ser Thr Leu Cys Gly Ser His Leu Phe Arg Leu  
 35 40 45  
 Met Cys Phe Gly Glu Arg Lys Lys Phe Leu Ala Glu Tyr Tyr Phe Glu  
 50 55 60  
 Leu Ser Arg Thr Leu Ser His Gln Arg Gln Phe Phe Ser Val Gln Phe

65 70 75 80

Pro Ile Pro Asp Asn Leu Leu Lys  
85

<210> 1328  
<211> 424  
<212> PRT  
<213> Homo sapiens

<400> 1328  
Ile Arg Val Ser Phe Met Asn Asn Gln Lys Gln Gln Lys Pro Thr Leu  
1 5 10 15  
Ser Gly Gln Arg Phe Lys Thr Arg Lys Arg Asp Glu Lys Glu Arg Phe  
20 25 30  
Asp Pro Thr Gln Phe Gln Asp Cys Ile Ile Gln Gly Leu Thr Glu Thr  
35 40 45  
Gly Thr Asp Leu Glu Ala Val Ala Lys Phe Leu Asp Ala Ser Gly Ala  
50 55 60  
Lys Leu Asp Tyr Arg Arg Tyr Ala Glu Thr Leu Phe Asp Ile Leu Val  
65 70 75 80  
Ala Gly Gly Met Leu Ala Pro Gly Gly Thr Leu Ala Asp Asp Met Met  
85 90 95  
Arg Thr Asp Val Cys Val Phe Ala Ala Gln Glu Asp Leu Glu Thr Met  
100 105 110  
Gln Ala Phe Ala Gln Val Phe Asn Lys Leu Ile Arg Arg Tyr Lys Tyr  
115 120 125  
Leu Glu Lys Gly Phe Glu Asp Glu Val Lys Lys Leu Leu Leu Phe Leu  
130 135 140  
Lys Gly Phe Ser Glu Ser Glu Arg Asn Lys Leu Ala Met Leu Thr Gly  
145 150 155 160  
Val Leu Leu Ala Asn Gly Thr Leu Asn Ala Ser Ile Leu Asn Ser Leu  
165 170 175  
Tyr Asn Glu Asn Leu Val Lys Glu Gly Val Ser Ala Ala Phe Ala Val  
180 185 190  
Lys Leu Phe Lys Ser Trp Ile Asn Glu Lys Asp Ile Asn Ala Val Ala  
195 200 205

1372

Ala Ser Leu Arg Lys Val Ser Met Asp Asn Arg Leu Met Glu Leu Phe  
 210 215 220  
 Pro Ala Asn Lys Gln Ser Val Glu His Phe Thr Lys Tyr Phe Thr Glu  
 225 230 235 240  
 Ala Gly Leu Lys Glu Leu Ser Glu Tyr Val Arg Asn Gln Gln Thr Ile  
 245 250 255  
 Gly Ala Arg Lys Glu Leu Gln Lys Glu Leu Gln Glu Gln Met Ser Arg  
 260 265 270  
 Gly Asp Pro Phe Lys Asp Ile Ile Leu Tyr Val Lys Glu Glu Met Lys  
 275 280 285  
 Lys Asn Asn Ile Pro Glu Pro Val Val Ile Gly Ile Val Trp Ser Ser  
 290 295 300  
 Val Met Ser Thr Val Glu Trp Asn Lys Lys Glu Glu Leu Val Ala Glu  
 305 310 315 320  
 Gln Ala Ile Lys His Leu Lys Gln Tyr Ser Pro Leu Leu Ala Ala Phe  
 325 330 335  
 Thr Thr Gln Gly Gln Ser Glu Leu Thr Leu Leu Leu Lys Ile Gln Glu  
 340 345 350  
 Tyr Cys Tyr Asp Asn Ile His Phe Met Lys Ala Phe Gln Lys Ile Val  
 355 360 365  
 Val Leu Phe Tyr Lys Ala Glu Val Leu Ser Glu Glu Pro Ile Leu Lys  
 370 375 380  
 Trp Tyr Lys Asp Ala His Val Ala Lys Gly Lys Ser Val Phe Leu Glu  
 385 390 395 400  
 Gln Met Lys Lys Phe Val Glu Trp Leu Lys Asn Ala Glu Glu Glu Ser  
 405 410 415  
 Glu Ser Glu Ala Glu Glu Gly Asp  
 420

&lt;210&gt; 1329

&lt;211&gt; 558

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1329



1373

Trp Tyr Cys Ser Val Gly Leu Ala Ser Thr Ala Gly Glu Gln Ala Ala  
 1 5 10 15  
 Ala Val Ala Ala Ala Phe Ser Leu His Pro Asp Tyr Ala Met Leu Gly  
 20 25 30  
 Phe Val Gly Arg Val Ala Ala Ala Pro Ala Ser Gly Ala Leu Arg Arg  
 35 40 45  
 Leu Thr Pro Ser Ala Ser Leu Pro Pro Ala Gln Leu Leu Leu Arg Ala  
 50 55 60  
 Ala Pro Thr Ala Val His Pro Val Arg Asp Tyr Ala Ala Gln Thr Ser  
 65 70 75 80  
 Pro Ser Pro Lys Ala Gly Ala Ala Thr Gly Arg Ile Val Ala Val Ile  
 85 90 95  
 Gly Ala Val Val Asp Val Gln Phe Asp Glu Gly Leu Pro Pro Ile Leu  
 100 105 110  
 Asn Ala Leu Glu Val Gln Gly Arg Glu Thr Arg Leu Val Leu Glu Val  
 115 120 125  
 Ala Gln His Leu Gly Glu Ser Thr Val Arg Thr Ile Ala Met Asp Gly  
 130 135 140  
 Thr Glu Gly Leu Val Arg Gly Gln Lys Val Leu Asp Ser Gly Ala Pro  
 145 150 155 160  
 Ile Lys Ile Pro Val Gly Pro Glu Thr Leu Gly Arg Ile Met Asn Val  
 165 170 175  
 Ile Gly Glu Pro Ile Asp Glu Arg Gly Pro Ile Lys Thr Lys Gln Phe  
 180 185 190  
 Ala Pro Ile His Ala Glu Ala Pro Glu Phe Met Glu Met Ser Val Glu  
 195 200 205  
 Gln Glu Ile Leu Val Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro  
 210 215 220  
 Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly  
 225 230 235 240  
 Lys Thr Val Leu Ile Met Glu Leu Ile Asn Asn Val Ala Lys Ala His  
 245 250 255  
 Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly  
 260 265 270

1374

Asn Asp Leu Tyr His Glu Met Ile Glu Ser Gly Val Ile Asn Leu Lys  
 275 280 285

Asp Ala Thr Ser Lys Val Ala Leu Val Tyr Gly Gln Met Asn Glu Pro  
 290 295 300

Pro Gly Ala Arg Ala Arg Val Ala Leu Thr Gly Leu Thr Val Ala Glu  
 305 310 315 320

Tyr Phe Arg Asp Gln Glu Gly Gln Asp Val Leu Leu Phe Ile Asp Asn  
 325 330 335

Ile Phe Arg Phe Thr Gln Ala Gly Ser Glu Val Ser Ala Leu Leu Gly  
 340 345 350

Arg Ile Pro Ser Ala Val Gly Tyr Gln Pro Thr Leu Ala Thr Asp Met  
 355 360 365

Gly Thr Met Gln Glu Arg Ile Thr Thr Thr Lys Lys Gly Ser Ile Thr  
 370 375 380

Ser Val Gln Ala Ile Tyr Val Pro Ala Asp Asp Leu Thr Asp Pro Ala  
 385 390 395 400

Pro Ala Thr Thr Phe Ala His Leu Asp Ala Thr Thr Val Leu Ser Arg  
 405 410 415

Ala Ile Ala Glu Leu Gly Ile Tyr Pro Ala Val Asp Pro Leu Asp Ser  
 420 425 430

Thr Ser Arg Ile Met Asp Pro Asn Ile Val Gly Ser Glu His Tyr Asp  
 435 440 445

Val Ala Arg Gly Val Gln Lys Ile Leu Gln Asp Tyr Lys Ser Leu Gln  
 450 455 460

Asp Ile Ile Ala Ile Leu Gly Met Asp Glu Leu Ser Glu Glu Asp Lys  
 465 470 475 480

Leu Thr Val Ser Arg Ala Arg Lys Ile Gln Arg Phe Leu Ser Gln Pro  
 485 490 495

Phe Gln Val Ala Glu Val Phe Thr Gly His Met Gly Lys Leu Val Pro  
 500 505 510

Leu Lys Glu Thr Ile Lys Gly Phe Gln Gln Ile Leu Ala Gly Glu Tyr  
 515 520 525

Asp His Leu Pro Glu Gln Ala Phe Tyr Met Val Gly Pro Ile Glu Glu  
 530 535 540

1375

Ala Val Ala Lys Ala Asp Lys Leu Ala Glu Glu His Ser Ser  
 545 550 555

&lt;210&gt; 1330

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1330

Thr Thr Pro Leu Ser Gln Ile Val Ala Arg Gly Leu Ile Ala Arg Gly  
 1 5 10 15

Val Pro Gly Ala Ile Val Asn Val Ser Ser Gln Cys Ser Gln Arg Ala  
 20 25 30

Val Thr Asn His Ser Val Tyr Cys Ser Thr Lys Gly Ala Leu Asp Met  
 35 40 45

Leu Thr Lys Val Met Ala Leu Glu Leu Gly Pro His Lys Ile Arg Val  
 50 55 60

Asn Ala Val Asn Pro Thr Val Val Met Thr Ser Met Gly Gln Ala Thr  
 65 70 75 80

Trp Ser Asp Pro His Lys Ala Lys Thr Met Leu Asn Arg Ile Pro Leu  
 85 90 95

Gly Lys Phe Ala Glu Val Glu His Val Val Asn Ala Ile Leu Phe Leu  
 100 105 110

Leu Ser Asp Arg Ser Gly Met Thr Thr Gly Ser Thr Leu Pro Val Glu  
 115 120 125

Gly Gly Phe Trp Ala Cys  
 130

&lt;210&gt; 1331

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1376

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1331

Ile Arg His Glu Pro Ser Arg Cys Arg Ser Arg Thr Ala Ala Val Cys  
 1 5 10 15

Ser Pro Pro Pro Cys Pro Pro Trp Arg Arg Pro Arg Gly Pro Trp Thr  
 20 25 30

Ala Lys Ser Pro Pro Trp Pro Pro Ala Arg Pro Arg Trp Gln Trp Thr  
 35 40 45

Arg Ala Leu Asn Ser Thr Ala Ala Pro Pro Arg Ser Pro Pro Ala Pro  
 50 55 60

Cys Pro Cys Arg Pro Asn Ser Ala Arg Arg Lys Arg Arg Pro Pro Ala  
 65 70 75 80

Asn Cys Arg Ala Ser Ser Gly Trp Leu Ala Ala Trp Lys Pro Ser Arg  
 85 90 95

Thr Gly Pro Ala Ala Arg Pro Arg Arg Pro Val Pro Asp Thr Ser Phe  
 100 105 110

His Ser Ser Pro Val Gln Ala Ala Val His Phe Val Gly Tyr Lys Ile  
 115 120 125

Asn His Gly Pro Ala Met Xaa Leu Xaa Phe Leu Leu Gln Leu Arg Leu  
 130 135 140

Gly Arg Gly Pro Gly Leu Pro Arg Glu Asn Val Leu Glu Thr Ala Pro  
 145 150 155 160

Val Phe Leu Ala Trp Phe Ile Cys Pro Gly Ser Gly Ser Asp Ser Gly  
 165 170 175

Gly Ser Glu Thr Ser Val Ala Leu Ser Tyr Trp Gly  
 180 185

&lt;210&gt; 1332

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

1377

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1332

Asp Asp Arg Arg Xaa Asp Ala Glu Ala Asp Lys Met Ala Ala Ala Ala  
 1 5 10 15

Val Gln Gly Gly Arg Ser Gly Gly Ser Gly Gly Cys Ser Gly Ala Gly  
 20 25 30

Gly Ala Ser Asn Cys Gly Thr Gly Ser Gly Arg Ser Gly Leu Leu Asp  
 35 40 45

Lys Trp Lys Ile Asp Asp Lys Pro Val Lys Ile Asp Lys Trp Asp Gly  
 50 55 60

Ser Ala Val Lys Asn Ser Leu Asp Asp Ser Ala Lys Lys Val Leu Leu  
 65 70 75 80

Glu Lys Tyr Lys Tyr Val Glu Asn Phe Gly Leu Ile Asp Gly Arg Leu  
 85 90 95

Thr Ile Cys Thr Ile Ser Cys Phe Phe Ala Ile Val Ala Leu Ile Trp  
 100 105 110

Asp Tyr Met His Pro Phe Pro Glu Ser Lys Pro Val Leu Ala Leu Cys  
 115 120 125

Val Ile Ser Tyr Phe Val Met Met Gly Ile Leu Thr Ile Tyr Thr Ser  
 130 135 140

Tyr Lys Glu Lys Ser Ile Phe Leu Val Ala His Arg Lys Asp Pro Thr  
 145 150 155 160

Gly Met Asp Pro Asp Asp Ile Trp Gln Leu Ser Ser Ser Leu Lys Arg  
 165 170 175

Phe Asp Asp Lys Tyr Thr Leu Lys Leu Thr Phe Ile Ser Gly Arg Thr  
 180 185 190

Lys Gln Gln Arg Glu Ala Glu Phe Thr Lys Ser Ile Ala Lys Phe Phe  
 195 200 205

Asp His Ser Gly Thr Leu Val Met Asp Ala Tyr Glu Pro Glu Ile Ser  
 210 215 220

Arg Leu His Asp Ser Leu Ala Ile Glu Arg Lys Ile Lys  
 225 230 235

&lt;210&gt; 1333

1378

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1333

Thr Thr Ala Asn Pro Leu Lys Thr Arg Gly Leu Ala Leu Val Ala Gln  
1 5 10 15

Pro Lys Val Ala Leu Gln Ile Phe Glu Arg Ala Thr Ala Thr Phe Leu  
20 25 30

Pro Ser Gln Leu Ser Leu Asp Phe Ser Glu Ser Gly Tyr Cys Tyr Pro  
35 40 45

Asn Val Cys Leu Tyr Glu Cys Ile  
50 55

&lt;210&gt; 1334

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1334

Ser His Pro Ala Cys Ala Lys Val Glu Tyr Ala Tyr Ser Asp Asn Ser  
1 5 10 15

Leu Asp Pro Asp Asp Glu Asp Ser Asp Tyr His Gln Glu Ala Tyr Lys  
20 25 30

Glu Ser Tyr Lys Asp Arg Arg Arg Arg Ala His Thr Gln Ala Glu Gln  
35 40 45

Lys Arg Arg Asp Ala Ile Lys Arg Gly Tyr Asp Asp Leu Gln Thr Ile  
50 55 60

Val Pro Thr Cys Gln Gln Gln Asp Phe Ser Ile Gly Ser Gln Lys Leu  
65 70 75 80

Ser Lys Ala Ile Val Leu Gln Lys Thr Ile Asp Tyr Ile Gln Phe Leu  
85 90 95

His Lys Glu Lys Lys Lys Gln Glu Glu Glu Val Ser Thr Leu Arg Lys  
100 105 110

Asp Val Thr Ala Leu Lys Ile Met Lys Val Asn Tyr Glu Gln Ile Val  
115 120 125

Lys Ala His Gln Asp Asn Pro His Glu Gly Glu Asp Gln Val Ser Asp  
130 135 140

1379

Gln Val Lys Phe Asn Val Phe Gln Gly Ile Met Asp Ser Leu Phe Gln  
145 150 155 160

Ser Phe Asn Ala Ser Ile Ser Val Ala Ser Phe Gln Glu Leu Ser Ala  
165 170 175

Cys Val Phe Ser Trp Ile Glu Glu His Cys Lys Pro Gln Thr Leu Arg  
180 185 190

Glu Ile Val Ile Gly Val Leu His Gln Leu Lys Asn Gln Leu Tyr  
195 200 205

<210> 1335

<211> 1005

<212> PRT

<213> Homo sapiens

<400> 1335

Arg Val Leu Gln Tyr Val Val Pro Glu Val Lys Asp Leu Tyr Asn Trp  
1 5 10 15

Leu Glu Val Glu Phe Asn Pro Leu Lys Leu Cys Glu Arg Val Thr Lys  
20 25 30

Val Leu Asn Trp Val Arg Glu Gln Pro Glu Lys Glu Pro Glu Leu Gln  
35 40 45

Gln Tyr Val Pro Gln Leu Gln Asn Asn Thr Ile Leu Arg Leu Leu Gln  
50 55 60

Gln Val Ser Gln Ile Tyr Gln Ser Ile Glu Phe Ser Arg Leu Thr Ser  
65 70 75 80

Leu Val Pro Phe Val Asp Ala Phe Gln Leu Glu Arg Ala Ile Val Asp  
85 90 95

Ala Ala Arg His Cys Asp Leu Gln Val Arg Ile Asp His Thr Ser Arg  
100 105 110

Thr Leu Ser Phe Gly Ser Asp Leu Asn Tyr Ala Thr Arg Glu Asp Ala  
115 120 125

Pro Ile Gly Pro His Leu Gln Ser Met Pro Ser Glu Gln Ile Arg Asn  
130 135 140

Gln Leu Thr Ala Met Ser Ser Val Leu Ala Lys Ala Leu Glu Val Ile  
145 150 155 160

1380

Lys Pro Ala His Ile Leu Gln Glu Lys Glu Glu Gln His Gln Leu Ala  
 165 170 175  
 Val Thr Ala Tyr Leu Lys Asn Ser Arg Lys Glu His Gln Arg Ile Leu  
 180 185 190  
 Ala Arg Arg Gln Thr Ile Glu Glu Arg Lys Glu Arg Leu Glu Ser Leu  
 195 200 205  
 Asn Ile Gln Arg Glu Lys Glu Glu Leu Glu Gln Arg Glu Ala Glu Leu  
 210 215 220  
 Gln Lys Val Arg Lys Ala Glu Glu Glu Arg Leu Arg Gln Glu Ala Lys  
 225 230 235 240  
 Glu Arg Glu Lys Glu Arg Ile Leu Gln Glu His Glu Gln Ile Lys Lys  
 245 250 255  
 Lys Thr Val Arg Glu Arg Leu Glu Gln Ile Lys Lys Thr Glu Leu Gly  
 260 265 270  
 Ala Lys Ala Phe Lys Asp Ile Asp Ile Glu Asp Leu Glu Glu Leu Asp  
 275 280 285  
 Pro Asp Phe Ile Met Ala Lys Gln Val Glu Gln Leu Glu Lys Glu Lys  
 290 295 300  
 Lys Glu Leu Gln Glu Arg Leu Lys Asn Gln Glu Lys Lys Ile Asp Tyr  
 305 310 315 320  
 Phe Glu Arg Ala Lys Arg Leu Glu Glu Ile Pro Leu Ile Lys Ser Ala  
 325 330 335  
 Tyr Glu Glu Gln Arg Ile Lys Asp Met Asp Leu Trp Glu Gln Gln Glu  
 340 345 350  
 Glu Glu Arg Ile Thr Thr Met Gln Leu Glu Arg Glu Lys Ala Leu Glu  
 355 360 365  
 His Lys Asn Arg Met Ser Arg Met Leu Glu Asp Arg Asp Leu Phe Val  
 370 375 380  
 Met Arg Leu Lys Ala Ala Arg Gln Ser Val Tyr Glu Glu Lys Leu Lys  
 385 390 395 400  
 Gln Phe Glu Glu Arg Leu Ala Glu Glu Arg His Asn Arg Leu Glu Glu  
 405 410 415  
 Arg Lys Arg Gln Arg Lys Glu Glu Arg Arg Ile Thr Tyr Tyr Arg Glu  
 420 425 430



1381

Lys Glu Glu Glu Glu Gln Arg Arg Ala Glu Glu Gln Met Leu Lys Glu  
 435 440 445  
 Arg Glu Glu Arg Glu Arg Ala Glu Arg Ala Lys Arg Glu Glu Glu Leu  
 450 455 460  
 Arg Glu Tyr Gln Glu Arg Val Lys Lys Leu Glu Glu Val Glu Arg Lys  
 465 470 475 480  
 Lys Arg Gln Arg Glu Leu Glu Ile Glu Glu Arg Glu Arg Arg Arg Glu  
 485 490 495  
 Glu Glu Arg Arg Leu Gly Asp Ser Ser Leu Ser Arg Lys Asp Ser Arg  
 500 505 510  
 Trp Gly Asp Arg Asp Ser Glu Gly Thr Trp Arg Lys Gly Pro Glu Ala  
 515 520 525  
 Asp Ser Glu Trp Arg Arg Gly Pro Pro Glu Lys Glu Trp Arg Arg Gly  
 530 535 540  
 Glu Gly Arg Asp Glu Asp Arg Ser His Arg Arg Asp Glu Glu Arg Pro  
 545 550 555 560  
 Arg Arg Leu Gly Asp Asp Glu Asp Arg Glu Pro Ser Leu Arg Pro Asp  
 565 570 575  
 Asp Asp Arg Val Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg  
 580 585 590  
 Arg Gly Pro Glu Glu Asp Arg Phe Ser Arg Arg Gly Ala Asp Asp Asp  
 595 600 605  
 Arg Pro Ser Trp Arg Asn Thr Asp Asp Asp Arg Pro Pro Arg Arg Ile  
 610 615 620  
 Ala Asp Glu Asp Arg Gly Asn Trp Arg His Ala Asp Asp Asp Arg Pro  
 625 630 635 640  
 Pro Arg Arg Gly Leu Asp Glu Asp Arg Gly Ser Trp Arg Thr Ala Asp  
 645 650 655  
 Glu Asp Arg Gly Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg  
 660 665 670  
 Arg Gly Gly Ala Asp Asp Glu Arg Ser Ser Trp Arg Asn Ala Asp Asp  
 675 680 685  
 Asp Arg Gly Pro Arg Arg Gly Leu Asp Asp Asp Arg Gly Pro Arg Arg  
 690 695 700

1382

Gly Met Asp Asp Asp Arg Gly Pro Arg Arg Gly Met Asp Asp Asp Arg  
 705 710 715 720

Gly Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg Arg Gly Leu  
 725 730 735

Asp Asp Asp Arg Gly Pro Trp Arg Asn Ala Asp Asp Asp Arg Ile Pro  
 740 745 750

Arg Arg Gly Ala Glu Asp Asp Arg Gly Pro Trp Arg Asn Met Asp Asp  
 755 760 765

Asp Arg Leu Ser Arg Arg Ala Asp Asp Asp Arg Phe Pro Arg Arg Gly  
 770 775 780

Asp Asp Ser Arg Pro Gly Pro Trp Arg Pro Leu Val Lys Pro Gly Gly  
 785 790 795 800

Trp Arg Glu Lys Glu Lys Ala Arg Glu Glu Ser Trp Gly Pro Pro Arg  
 805 810 815

Glu Ser Arg Pro Ser Glu Glu Arg Glu Trp Asp Arg Glu Lys Glu Arg  
 820 825 830

Asp Arg Asp Asn Gln Asp Arg Glu Glu Asn Asp Lys Asp Pro Glu Arg  
 835 840 845

Glu Arg Asp Arg Glu Arg Asp Val Asp Arg Glu Asp Arg Phe Arg Arg  
 850 855 860

Pro Arg Asp Glu Gly Gly Trp Arg Arg Gly Pro Ala Glu Glu Ser Ser  
 865 870 875 880

Ser Trp Arg Asp Ser Ser Arg Arg Asp Asp Arg Asp Arg Asp Asp Arg  
 885 890 895

Arg Arg Glu Arg Asp Asp Arg Arg Asp Leu Arg Glu Arg Arg Asp Leu  
 900 905 910

Arg Asp Asp Arg Asp Arg Arg Gly Pro Pro Leu Arg Ser Glu Arg Glu  
 915 920 925

Glu Val Ser Ser Trp Arg Arg Ala Asp Asp Arg Lys Asp Asp Arg Val  
 930 935 940

Glu Glu Arg Asp Pro Pro Arg Arg Val Pro Pro Pro Ala Leu Ser Arg  
 945 950 955 960

Asp Arg Glu Arg Asp Arg Asp Arg Glu Arg Glu Gly Glu Lys Glu Lys  
 965 970 975

1383

Ala Ser Trp Arg Ala Glu Lys Asp Arg Glu Ser Leu Arg Arg Thr Lys  
980 985 990

Asn Glu Thr Asp Glu Asp Gly Trp Thr Thr Val Arg Arg  
995 1000 1005

<210> 1336

<211> 231

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1336

Ala Gly Ile His Pro Met Asn Ser Ile Ser Ser Leu Asp Arg Thr Arg  
1 5 10 15

1384

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Met Met Thr Pro Phe Met Gly Ile Ser Pro Leu Pro Gly Gly Glu Arg
      20                      25                      30

Phe Pro Tyr Pro Ser Phe His Trp Asp Pro Ile Arg Asp Pro Leu Arg
      35                      40                      45

Asp Pro Tyr Xaa Glu Leu Asp Ile His Arg Arg Asp Pro Leu Gly Xaa
      50                      55                      60

Asp Phe Leu Leu Arg Asn Asp Pro Xaa His Arg Leu Ser Thr Xaa Arg
      65                      70                      75                      80

Leu Xaa Xaa Ala Asp Arg Ser Phe Arg Asp Arg Glu Pro His Asp Tyr
      85                      90                      95

Ser His His His His His His His His Pro Leu Ser Val Asp Pro Arg
      100                     105                     110

Arg Glu His Glu Arg Xaa Gly His Leu Asp Glu Arg Glu Arg Leu His
      115                     120                     125

Met Leu Arg Glu Asp Tyr Glu His Thr Arg Leu His Ser Val His Pro
      130                     135                     140

Ala Ser Leu Asp Gly His Leu Pro His Pro Ser Leu Ile Thr Pro Gly
      145                     150                     155                     160

Leu Pro Ser Met His Tyr Pro Arg Ile Ser Pro Thr Ala Gly Asn Gln
      165                     170                     175

Asn Gly Leu Leu Asn Lys Thr Pro Pro Thr Ala Ala Leu Ser Ala Pro
      180                     185                     190

Pro Pro Leu Ile Ser Thr Leu Gly Gly Arg Pro Val Ser Pro Arg Arg
      195                     200                     205

Thr Thr Pro Leu Ser Ala Glu Ile Arg Glu Arg Pro Pro Ser His Thr
      210                     215                     220

Leu Lys Asp Ile Glu Ala Arg
      225                     230

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&lt;210&gt; 1337

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1337

1385

Gly Val Glu Gly Leu Lys Asp Ala Gln Met Arg Asp Leu Leu Ser Pro  
 1 5 10 15  
 Pro Thr Asp Asn Arg Pro Gly Gln Met Asp Asn Arg Ser Lys Leu Arg  
 20 25 30  
 Asn Ile Val Glu Leu Arg Leu Ala Gly Leu Asp Ile Thr Asp Ala Ser  
 35 40 45  
 Leu Arg Leu Ile Ile Arg His Met Pro Leu Leu Ser Lys Leu His Leu  
 50 55 60  
 Ser Tyr Cys Asn His Val Thr Asp Gln Ser Ile Asn Leu Leu Thr Ala  
 65 70 75 80  
 Val Gly Thr Thr Thr Arg Asp Ser Leu Thr Glu Ile Asn Leu Ser Asp  
 85 90 95  
 Cys Asn Lys Val Thr Asp Gln Cys Leu Ser Phe Phe Lys Arg Cys Gly  
 100 105 110  
 Asn Ile Cys His Ile Asp Leu Arg Tyr Cys Lys Gln Val Thr Lys Glu  
 115 120 125  
 Gly Cys Glu Gln Phe Ile Ala Glu Met Ser Val Ser Val Gln Phe Gly  
 130 135 140  
 Gln Val Glu Glu Lys Leu Leu Gln Lys Leu Ser  
 145 150 155

&lt;210&gt; 1338

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1338

Asn Asn Ser Gly Val Met Pro Glu Met Pro Glu Asp Met Glu Gln Glu  
 1 5 10 15  
 Glu Val Asn Ile Pro Asn Arg Arg Val Leu Val Thr Gly Ala Thr Gly  
 20 25 30  
 Leu Leu Gly Arg Ala Val His Lys Glu Phe Gln Gln Asn Asn Trp His  
 35 40 45  
 Ala Val Gly Cys Gly Phe Arg Arg Ala Arg Pro Lys Phe Glu Gln Val  
 50 55 60  
 Asn Leu Leu Asp Ser Asn Ala Val His His Ile Ile His Asp Phe Gln

1386

65		70		75		80
Pro His Val Ile Val His Cys Ala Ala Glu Arg Arg Pro Asp Val Val						
	85			90		95
Glu Asn Gln Pro Asp Ala Ala Ser Gln Leu Asn Val Asp Ala Ser Gly						
	100			105		110
Asn Leu Ala Lys Glu Ala Ala Ala Val Gly Ala Phe Leu Ile Tyr Ile						
	115			120		125
Ser Ser Asp Tyr Val Phe Asp Gly Thr Asn Pro Pro Tyr Arg Glu Glu						
	130			135		140
Asp Ile Pro Ala Pro Leu Asn Leu Tyr Gly Lys Thr Lys Leu Asp Gly						
	145			150		155
Glu Lys Ala Val Leu Glu Asn Asn Leu Gly Ala Ala Val Leu Arg Ile						
	165			170		175
Pro Ile Leu Tyr Gly Glu Val Glu Lys Leu Glu Glu Ser Ala Val Thr						
	180			185		190
Val Met Phe Asp Lys Val Gln Phe Ser Asn Lys Ser Ala Asn Met Asp						
	195			200		205
His Trp Gln Gln Arg Phe Pro Thr His Val Lys Asp Val Ala Thr Val						
	210			215		220
Cys Arg Gln Leu Ala Glu Lys Arg Met Leu Asp Pro Ser Ile Lys Gly						
	225			230		235
Thr Phe His Trp Ser Gly Asn Glu Gln Met Thr Lys Tyr Glu Met Ala						
	245			250		255
Cys Ala Ile Ala Asp Ala Phe Asn Leu Pro Ser Ser His Leu Arg Pro						
	260			265		270
Ile Thr Asp Ser Pro Val Leu Gly Ala Gln Arg Pro Arg Asn Ala Gln						
	275			280		285
Leu Asp Cys Ser Lys Leu Glu Thr Leu Gly Ile Gly Gln Arg Thr Pro						
	290			295		300
Phe Arg Ile Gly Ile Lys Glu Ser Leu Trp Pro Phe Leu Ile Asp Lys						
	305			310		315
Arg Trp Arg Gln Thr Val Phe His						
	325					

1387

&lt;210&gt; 1339

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1339

Leu Xaa His Pro Phe Ala Val Thr Ser Tyr Gly Lys Asn Leu Tyr Phe  
 1 5 10 15

Thr Asp Trp Lys Met Asn Ser Val Val Ala Leu Asp Leu Ala Ile Ser  
 20 25 30

Lys Glu Thr Asp Ala Phe Gln Pro His Lys Gln Thr Arg Leu Tyr Gly  
 35 40 45

Ile Thr Thr Ala Leu Ser Gln Cys Pro Gln Ala Ile Thr Thr Ala Gln  
 50 55 60

&lt;210&gt; 1340

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1340

Arg Lys Met Ala Val Glu Ser Arg Val Thr Gln Glu Glu Ile Lys Lys  
 1 5 10 15

Glu Pro Glu Lys Pro Ile Asp Arg Glu Lys Thr Cys Pro Leu Leu Leu  
 20 25 30

Arg Val Phe Thr Thr Asn Asn Gly Arg His His Arg Met Asp Glu Phe  
 35 40 45

Ser Arg Gly Asn Val Pro Ser Ser Glu Leu Gln Ile Tyr Thr Trp Met  
 50 55 60

Asp Ala Thr Leu Lys Glu Leu Thr Ser Leu Val Lys Glu Val Tyr Pro  
 65 70 75 80

Glu Ala Arg Lys Lys Gly Thr His Phe Asn Phe Ala Ile Val Phe Thr

1388

	85		90		95
Asp Val Lys Arg Pro Gly Tyr Arg Val Lys Glu Ile Gly Ser Thr Met					
	100		105		110
Ser Gly Arg Lys Gly Thr Asp Asp Ser Met Thr Leu Gln Ser Gln Lys					
	115		120		125
Phe Gln Ile Gly Asp Tyr Leu Asp Ile Ala Ile Thr Pro Pro Asn Arg					
	130		135		140
Ala Pro Pro Pro Ser Gly Arg Met Arg Pro Tyr					
	145		150		155

&lt;210&gt; 1341

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1341

Ala Gln Leu Pro Ser Ser Ser Phe Leu Arg His Arg Gly Val Phe Leu					
1	5		10		15
Thr Pro Leu Leu Ala Met Ser Ser His Lys Thr Phe Arg Ile Lys Arg					
	20		25		30
Phe Leu Ala Lys Lys Gln Lys Gln Asn Arg Pro Ile Pro Gln Trp Ile					
	35		40		45
Arg Met Lys Thr Gly Asn Lys Ile Arg Tyr Asn Ser Lys Arg Arg His					
	50		55		60
Trp Arg Arg Thr Lys Leu Gly Leu					
	65		70		

&lt;210&gt; 1342

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1342

Leu Lys Val Ala Gln Thr Asp Gly Val Asn Val Asp Met His Leu Lys					
1	5		10		15
Gln Ile Glu Ile Lys Lys Phe Lys Tyr Gly Ile Glu Glu His Gly Lys					
	20		25		30



1389

Val Lys Met Arg Gly Gly Leu Leu Arg Thr Tyr Ile Ile Ser Ile Leu  
           35                          40                          45  
 Phe Lys Ser Ile Phe Glu Val Ala Phe Leu Leu Ile Gln Trp Tyr Ile  
           50                          55                          60  
 Tyr Gly Phe Ser Leu Ser Ala Val Tyr Thr Cys Lys Arg Asp Pro Cys  
           65                          70                          75                          80  
 Pro His Gln Val Asp Cys Phe Leu Ser Arg Pro Thr Glu Lys Thr Ile  
                           85                          90                          95  
 Phe Ile Ile Phe Met Leu Val Val Ser Leu Val Ser Leu Ala Leu Asn  
                           100                          105                          110  
 Ile Ile Glu Leu Phe Tyr Val Phe Phe Lys Gly Val Lys Asp Arg Val  
           115                          120                          125  
 Lys Gly Lys Ser Asp Pro Tyr His Ala Thr Ser Gly Ala Leu Ser Pro  
           130                          135                          140  
 Ala Lys Asp Cys Gly Ser Gln Lys Tyr Ala Tyr Phe Asn Gly Cys Ser  
           145                          150                          155                          160  
 Ser Pro Thr Ala Pro Leu Ser Pro Met Ser Pro Pro Gly Tyr Lys Leu  
                           165                          170                          175  
 Val Thr Gly Asp Arg Asn Asn Ser Ser Cys Arg Asn Tyr Asn Lys Gln  
                           180                          185                          190  
 Ala Ser Glu Gln Asn Trp Ala Asn Tyr Ser Ala Glu Gln Asn Arg Met  
           195                          200                          205  
 Gly Gln Ala Gly Ser Thr Ile Ser Asn Ser His Ala Gln Pro Phe Asp  
           210                          215                          220  
 Phe Pro Asp Asp Asn Gln Asn Ser Lys Lys Leu Ala Ala Gly His Glu  
           225                          230                          235                          240  
 Leu Gln Pro Leu Ala Ile Val Asp Gln Arg Pro Ser Ser Arg Ala Ser  
                           245                          250                          255  
 Ser Arg Ala Ser Ser Arg Pro Arg Pro Asp Asp Leu Glu Ile  
           260                          265                          270

&lt;210&gt; 1343

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1390

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1343

Gln Glu Leu Arg Ser Pro Ser Arg Ser Pro Ser Pro Pro Pro Lys Ser  
1 5 10 15

Pro Pro Trp Thr Thr Gly Gly Ser Leu Cys Glu Gln Leu Ala Phe Arg  
20 25 30

Lys Pro Leu Ser Val Phe Lys Gln Lys Val Glu Gly Ala Thr Lys Gln  
35 40 45

Ala Ala Val Arg Ala Ser Xaa Cys Arg Pro Leu Pro Cys Ser Ser Ser  
50 55 60

Ser Phe Ala Ser Ala Ser Ser Val Met Phe Cys Leu Glu Phe Tyr Leu  
65 70 75 80

Asp Phe Phe Ser Gly Tyr Phe Ser Val Phe Gln Pro Leu Leu  
85 90

&lt;210&gt; 1344

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1344

Tyr Ser Thr Arg Ala Leu Trp Lys Pro Asn His Val His Val Cys Val  
1 5 10 15

1391

Cys Val Cys Ala Ser Phe Glu Pro Pro Ser Thr Ala Ala Ser Ser His  
                   20                  25                  30  
 Asp Thr Lys Leu Leu Ile Ser Thr Phe Leu Trp Val Ala Gln Gly Leu  
                   35                  40                  45  
 Ile Ala Ser His Ser Ile Thr Arg Ile Glu Ala Arg His Gly Gly Ala  
                   50                  55                  60  
 Cys Leu Val Val Pro Ala Lys Leu Gly Arg Leu Glu Gly Arg Glu Gly  
                   65                  70                  75                  80  
 Ser Leu Trp Ser Pro Gly Arg Leu Glu Gly Trp Gln Trp Ser His Gly  
                                   85                  90                  95  
 Ser Gly Gly His Trp His Phe Gln Pro Gly Gly Gly Arg Val Glu Thr  
                   100                  105                  110  
 Phe Val Leu Gln Lys Xaa Lys Lys Lys Xaa Xaa Gly Gly  
                   115                  120                  125

&lt;210&gt; 1345

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1345

Pro Arg Val Arg Arg Leu Arg Glu Asp Asp Arg Arg Gly Phe Leu Ser  
           1                  5                  10                  15  
 Phe Arg Ala Asp Ser Ala His Ala Ser Met Val Asn Val Pro Lys Thr  
                   20                  25                  30  
 Arg Arg Thr Phe Cys Lys Lys Cys Gly Lys His Gln Pro His Lys Val  
                   35                  40                  45  
 Thr Gln Tyr Lys Lys Gly Lys Asp Ser Leu Tyr Ala Gln Gly Lys Arg  
                   50                  55                  60  
 Arg Tyr Asp Arg Lys Gln Ser Gly Tyr Gly Gly Gln Thr Lys Pro Ile  
                   65                  70                  75                  80  
 Phe Arg Lys Lys Ala Lys Thr Thr Lys Lys Ile Val Leu Arg Leu Glu  
                   85                  90                  95  
 Cys Val Glu Pro Asn Cys Arg Ser Lys Arg Met Leu Ala Ile Lys Arg  
                   100                  105                  110  
 Cys Lys His Phe Glu Leu Gly Gly Asp Lys Lys Arg Lys Gly Gln Val

1392

115

120

125

Ile Gln Phe  
130

&lt;210&gt; 1346

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1346

Asn Lys Arg Asn Cys Lys Phe Pro Leu Leu Lys Ile Thr Lys Ile Thr  
1 5 10 15

Glu Thr Lys Glu Glu Ile Arg Ile Trp Gly Ile Val Leu Asn Asn Leu  
20 25 30

Val Val Lys Lys Asn Asn Cys Ala Cys Leu Asp Leu Asn Lys Pro Pro  
35 40 45

Ser Lys Cys Glu Gly Ser Ser Asn Phe Ser Lys His Met Lys Val Leu  
50 55 60

Ile His Phe Asp Lys Gly Pro Leu Lys Lys Ser  
65 70 75

&lt;210&gt; 1347

&lt;211&gt; 413

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1347

Gly Val Ala Arg Ala Gln Pro Val Pro Ala Val Leu Ser Trp Leu Leu  
1 5 10 15

Ala Leu Leu Arg Cys Ala Ala Thr Met Leu Ser Leu Arg Val Pro Leu  
20 25 30

Ala Pro Ile Thr Asp Pro Gln Gln Leu Gln Leu Ser Pro Leu Lys Gly  
35 40 45

Leu Ser Leu Val Asp Lys Glu Asn Thr Pro Pro Ala Leu Ser Gly Thr  
50 55 60

Arg Val Leu Ala Ser Lys Thr Ala Arg Arg Ile Phe Gln Glu Pro Thr  
65 70 75 80

1393

Glu	Pro	Lys	Thr	Lys	Ala	Ala	Ala	Pro	Gly	Val	Glu	Asp	Glu	Pro	Leu	85	90	95	
Leu	Arg	Glu	Asn	Pro	Arg	Arg	Phe	Val	Ile	Phe	Pro	Ile	Glu	Tyr	His	100	105	110	
Asp	Ile	Trp	Gln	Met	Tyr	Lys	Lys	Ala	Glu	Ala	Ser	Phe	Trp	Thr	Ala	115	120	125	
Glu	Glu	Val	Asp	Leu	Ser	Lys	Asp	Ile	Gln	His	Trp	Glu	Ser	Leu	Lys	130	135	140	
Pro	Glu	Glu	Arg	Tyr	Phe	Ile	Ser	His	Val	Leu	Ala	Phe	Phe	Ala	Ala	145	150	155	160
Ser	Asp	Gly	Ile	Val	Asn	Glu	Asn	Leu	Val	Glu	Arg	Phe	Ser	Gln	Glu	165	170	175	
Val	Gln	Ile	Thr	Glu	Ala	Arg	Cys	Phe	Tyr	Gly	Phe	Gln	Ile	Ala	Met	180	185	190	
Glu	Asn	Ile	His	Ser	Glu	Met	Tyr	Ser	Leu	Leu	Ile	Asp	Thr	Tyr	Ile	195	200	205	
Lys	Asp	Pro	Lys	Glu	Arg	Glu	Phe	Leu	Phe	Asn	Ala	Ile	Glu	Thr	Met	210	215	220	
Pro	Cys	Val	Lys	Lys	Lys	Ala	Asp	Trp	Ala	Leu	Arg	Trp	Ile	Gly	Asp	225	230	235	240
Lys	Glu	Ala	Thr	Tyr	Gly	Glu	Arg	Val	Val	Ala	Phe	Ala	Ala	Val	Glu	245	250	255	
Gly	Ile	Phe	Phe	Ser	Gly	Ser	Phe	Ala	Ser	Ile	Phe	Trp	Leu	Lys	Lys	260	265	270	
Arg	Gly	Leu	Met	Pro	Gly	Leu	Thr	Phe	Ser	Asn	Glu	Leu	Ile	Ser	Arg	275	280	285	
Asp	Glu	Gly	Leu	His	Cys	Asp	Phe	Ala	Cys	Leu	Met	Phe	Lys	His	Leu	290	295	300	
Val	His	Lys	Pro	Ser	Glu	Glu	Arg	Val	Arg	Glu	Ile	Ile	Ile	Asn	Ala	305	310	315	320
Val	Arg	Ile	Glu	Gln	Glu	Phe	Leu	Thr	Glu	Ala	Leu	Pro	Val	Lys	Leu	325	330	335	
Ile	Gly	Met	Asn	Cys	Thr	Leu	Met	Lys	Gln	Tyr	Ile	Glu	Phe	Val	Ala	340	345	350	

1394

Asp Arg Leu Met Leu Glu Leu Gly Phe Ser Lys Val Phe Arg Val Glu  
 355 360 365  
 Asn Pro Phe Asp Phe Met Glu Asn Ile Ser Leu Glu Gly Lys Thr Asn  
 370 375 380  
 Phe Phe Glu Lys Arg Val Gly Glu Tyr Gln Arg Met Gly Val Met Ser  
 385 390 395 400  
 Ser Pro Thr Glu Asn Ser Phe Thr Leu Asp Ala Asp Phe  
 405 410

<210> 1348  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 1348

Thr Gly Asn Lys Met Gln Asp Pro Asn Ala Asp Thr Glu Trp Asn Asp  
 1 5 10 15  
 Ile Leu Arg Lys Lys Gly Ile Leu Pro Pro Lys Glu Ser Leu Lys Glu  
 20 25 30  
 Leu Glu Glu Glu Ala Glu Glu Glu Gln Arg Ile Leu Gln Gln Ser Val  
 35 40 45  
 Val Lys Thr Tyr Glu Asp Met Thr Leu Glu Glu Leu Glu Asp His Glu  
 50 55 60  
 Asp Glu Phe Asn Glu Glu Asp Glu Arg Ala Ile Glu Met Tyr Arg Arg  
 65 70 75 80  
 Arg Arg Leu Ala Glu Trp Lys Ala Thr Lys Leu Lys Asn Lys Phe Gly  
 85 90 95  
 Glu Val Leu Glu Ile Ser Gly Lys Asp Tyr Val Gln Glu Val Thr Lys  
 100 105 110  
 Ala Gly Glu Gly Leu Trp Val Ile Leu His Leu Tyr Lys Gln Gly Ile  
 115 120 125  
 Pro Leu Cys Ala Leu Ile Asn Gln His Leu Ser Gly Leu Ala Arg Lys  
 130 135 140  
 Phe Pro Asp Val Lys Phe Ile Lys Ala Ile Ser Thr Thr Cys Ile Pro  
 145 150 155 160  
 Asn Tyr Pro Asp Arg Asn Leu Pro Thr Ile Phe Val Tyr Leu Glu Gly

1395

	165		170		175
Asp Ile Lys Ala Gln Phe Ile Gly Pro Leu Val Phe Gly Gly Met Asn					
	180		185		190
Leu Thr Arg Asp Glu Leu Glu Trp Lys Leu Ser Glu Ser Gly Ala Ile					
	195		200		205
Met Thr Asp Leu Glu Glu Asn Pro Lys Lys Pro Ile Glu Asp Val Leu					
	210		215		220
Leu Ser Ser Val Arg Arg Ser Val Leu Met Lys Arg Asp Ser Asp Ser					
	225		230		240
Glu Gly Asp					

&lt;210&gt; 1349

&lt;211&gt; 326

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1349

Arg Met Ala Thr Pro Leu Pro Pro Pro Ser Pro Arg His Leu Arg Leu
1 5 10 15

Leu Arg Leu Leu Leu Ser Gly Leu Val Leu Gly Ala Ala Leu Arg Gly
20 25 30

Ala Ala Ala Gly His Pro Asp Val Ala Ala Cys Pro Gly Ser Leu Asp
35 40 45

Cys Ala Leu Lys Arg Arg Ala Arg Cys Pro Pro Gly Ala His Ala Cys
50 55 60

Gly Pro Cys Leu Gln Pro Phe Gln Glu Asp Gln Gln Gly Leu Cys Val
65 70 75 80

Pro Arg Met Arg Arg Pro Pro Gly Gly Gly Arg Pro Gln Pro Arg Leu

1396

85	90	95
Glu Asp Glu Ile Asp Phe Leu Ala Gln Glu Leu Ala Arg Lys Glu Ser 100	105	110
Gly His Ser Thr Pro Pro Leu Pro Lys Asp Arg Gln Arg Leu Pro Glu 115	120	125
Pro Ala Thr Leu Gly Phe Ser Ala Xaa Gly Gln Gly Leu Xaa Leu Gly 130	135	140
Leu Pro Ser Thr Pro Gly Thr Pro Thr Pro Thr Pro His Thr Ser Leu 145	150	155
Gly Ser Pro Val Ser Ser Asp Pro Val His Met Ser Pro Leu Glu Pro 165	170	175
Arg Gly Gly Gln Gly Asp Gly Leu Ala Leu Val Leu Ile Leu Ala Phe 180	185	190
Cys Val Ala Gly Ala Ala Ala Leu Ser Val Ala Ser Leu Cys Trp Cys 195	200	205
Arg Leu Gln Arg Glu Ile Arg Leu Thr Gln Lys Ala Asp Tyr Ala Thr 210	215	220
Ala Lys Ala Pro Gly Ser Pro Ala Ala Pro Arg Ile Ser Pro Gly Asp 225	230	235
Gln Arg Leu Ala Gln Ser Ala Glu Met Tyr His Tyr Gln His Gln Arg 245	250	255
Gln Gln Met Leu Cys Leu Glu Arg His Lys Glu Pro Pro Lys Glu Leu 260	265	270
Asp Thr Ala Ser Ser Asp Glu Glu Asn Glu Asp Gly Asp Phe Thr Val 275	280	285
Tyr Glu Cys Pro Gly Leu Ala Pro Thr Gly Glu Met Glu Val Arg Asn 290	295	300
Pro Leu Phe Asp His Ala Ala Leu Ser Ala Pro Leu Pro Ala Pro Ser 305	310	315
Ser Pro Pro Ala Leu Pro 325		

&lt;210&gt; 1350

&lt;211&gt; 62



1397

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1350

Val Lys Ser Asp Thr Pro Pro Cys Val Ser Lys Asn Leu Val Pro Pro  
 1 5 10 15

Leu His Thr Ser Leu Thr Leu Asn Ile Phe His Trp Ile Leu Asp Arg  
 20 25 30

Ala Lys Gly Arg Thr Gly Ala Ser Gly Gly Pro Trp Leu Phe Lys Ser  
 35 40 45

Trp Ile Ile Cys Asp Ser Asn His Lys Phe Leu Ala Asn Phe  
 50 55 60

&lt;210&gt; 1351

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (299)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1351

Glu Pro Arg Pro Gly Cys Gly Asn Lys Met Ala Gly Lys Lys Asn Val  
 1 5 10 15

Leu Ser Ser Leu Ala Val Tyr Ala Glu Asp Ser Glu Pro Glu Ser Asp  
 20 25 30

Gly Glu Ala Gly Ile Glu Ala Val Gly Ser Ala Ala Glu Glu Lys Gly  
 35 40 45

Gly Leu Val Ser Asp Ala Tyr Gly Glu Asp Asp Phe Ser Arg Leu Gly  
 50 55 60

Gly Asp Glu Asp Gly Tyr Glu Glu Glu Glu Asp Glu Asn Ser Arg Gln  
 65 70 75 80

Ser Glu Asp Asp Asp Ser Glu Thr Glu Lys Pro Glu Ala Asp Asp Pro  
 85 90 95

Lys Asp Asn Thr Glu Ala Glu Lys Arg Asp Pro Gln Glu Leu Val Ala  
 100 105 110

Ser Phe Ser Glu Arg Val Arg Asn Met Ser Pro Asp Glu Ile Lys Ile

1398

115	120	125
Pro Pro Glu Pro Pro Gly Arg Cys Ser Asn His Leu Gln Asp Lys Ile		
130	135	140
Gln Lys Leu Tyr Glu Arg Lys Ile Lys Glu Gly Met Asp Met Asn Tyr		
145	150	155
Ile Ile Gln Arg Lys Lys Glu Phe Arg Asn Pro Ser Ile Tyr Glu Lys		
	165	170
Leu Ile Gln Phe Cys Ala Ile Asp Glu Leu Gly Thr Asn Tyr Pro Lys		
	180	185
Asp Met Phe Asp Pro His Gly Trp Ser Glu Asp Ser Tyr Tyr Glu Ala		
	195	200
Leu Ala Lys Ala Gln Lys Ile Glu Met Asp Lys Leu Glu Lys Ala Lys		
	210	215
Lys Glu Arg Thr Lys Ile Glu Phe Val Thr Gly Thr Lys Lys Gly Thr		
225	230	235
Thr Thr Asn Ala Thr Ser Thr Thr Thr Thr Thr Ala Ser Thr Ala Val		
	245	250
Ala Asp Ala Gln Lys Arg Lys Ser Lys Trp Asp Ser Ala Ile Pro Val		
	260	265
Thr Thr Ile Ser Pro Ala His His Pro His His His Ser His Pro Ala		
	275	280
Ser Cys Cys His Gly His His Gln Arg Gln Xaa Ser Lys Asp His Arg		
	290	295
His Leu Cys Cys Gly Ala Pro Leu		
305	310	

&lt;210&gt; 1352

&lt;211&gt; 259

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1352

1399

Leu Leu Asp Ser Leu Lys Xaa Asp Tyr Ala Gly Lys Pro Gln Pro Pro  
 1 5 10 15  
 Ile Lys Ser Glu Arg Arg Asn Pro Pro Ser Tyr Ala Met Ala Gly Lys  
 20 25 30  
 Lys Val Leu Ile Val Tyr Ala His Gln Glu Pro Lys Ser Phe Asn Gly  
 35 40 45  
 Ser Leu Lys Asn Val Ala Val Asp Glu Leu Ser Arg Gln Gly Cys Thr  
 50 55 60  
 Val Thr Val Ser Asp Leu Tyr Ala Met Asn Phe Glu Pro Arg Ala Thr  
 65 70 75 80  
 Asp Lys Asp Ile Thr Gly Thr Leu Ser Asn Pro Glu Val Phe Asn Tyr  
 85 90 95  
 Gly Val Glu Thr His Glu Ala Tyr Lys Gln Arg Ser Leu Ala Ser Asp  
 100 105 110  
 Ile Thr Asp Glu Gln Lys Lys Val Arg Glu Ala Asp Leu Val Ile Phe  
 115 120 125  
 Gln Phe Pro Leu Tyr Trp Phe Ser Val Pro Ala Ile Leu Lys Gly Trp  
 130 135 140  
 Met Asp Arg Val Leu Cys Gln Gly Phe Ala Phe Asp Ile Pro Gly Phe  
 145 150 155 160  
 Tyr Asp Ser Gly Leu Leu Gln Gly Lys Leu Ala Leu Leu Ser Val Thr  
 165 170 175  
 Thr Gly Gly Thr Ala Glu Met Tyr Thr Lys Thr Gly Val Asn Gly Asp  
 180 185 190  
 Ser Arg Tyr Phe Leu Trp Pro Leu Gln His Gly Thr Leu His Phe Cys  
 195 200 205  
 Gly Phe Lys Val Leu Ala Pro Gln Ile Ser Phe Ala Pro Glu Ile Ala  
 210 215 220  
 Ser Glu Glu Glu Arg Lys Gly Met Val Ala Ala Trp Ser Gln Arg Leu  
 225 230 235 240  
 Gln Thr Ile Trp Lys Glu Glu Pro Ile Pro Cys Thr Ala His Trp His  
 245 250 255  
 Phe Gly Gln

1400

&lt;210&gt; 1353

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1353

Asp Leu Ala Ser Glu Glu His Phe Phe Ser Val Lys Phe Leu Tyr Leu  
 1 5 10 15

Lys Ile Gln Lys Tyr Phe Arg Ile Leu Leu Ile Leu Ser Pro Val Phe  
 20 25 30

Thr Ser Phe Trp Lys Thr Cys Ile Thr Met Ser Leu Glu Lys Gly Gln  
 35 40 45

Arg Lys Ala Phe His Val Lys Ile Arg Ser Leu Ala Ile Ser Asn Pro  
 50 55 60

Val Leu Phe Ser Leu His Phe Phe  
 65 70

&lt;210&gt; 1354

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1354

Lys Arg Arg Arg Arg Leu Glu Gln Arg Gln Gln Pro Asp Glu Gln Arg  
 1 5 10 15

Arg Arg Ser Gly Ala Met Val Lys Met Ala Ala Ala Gly Gly Gly Gly  
 20 25 30

Gly Gly Gly Arg Tyr Tyr Gly Gly Gly Ser Glu Gly Gly Arg Ala Pro  
 35 40 45

Lys Arg Leu Lys Thr Asp Asn Ala Gly Asp Gln His Gly Gly Gly Gly  
 50 55 60

Gly Gly Gly Gly Gly Ala Gly Ala Ala Gly Gly Gly Gly Gly Glu  
 65 70 75 80

Asn Tyr Asp Asp Pro His Lys Thr Pro Ala Ser Pro Val Val His Ile  
 85 90 95

Arg Gly Leu Ile Asp Gly Val Val Glu Ala Asp Leu Val Glu Ala Leu  
 100 105 110

1401

Gln Glu Phe Gly Pro Ile Ser Tyr Val Val Val Met Pro Lys Lys Arg  
 115 120 125

Gln Ala Leu Val Glu Phe Glu Asp Val Leu Gly Ala Cys Asn Ala Val  
 130 135 140

Asn Tyr Ala Ala Asp Asn Gln Ile Tyr Ile Ala Gly His Pro Ala Phe  
 145 150 155 160

Val Asn Tyr Ser Thr Ser Gln Lys Ile Ser Arg Pro Gly Asp Ser Asp  
 165 170 175

Asp Ser Arg Ser Val Asn Ser Val Leu Leu Phe Thr Ile Leu Asn Pro  
 180 185 190

Ile Tyr Ser Ile Thr Thr Asp Val Leu Tyr Thr Ile Cys Asn Pro Cys  
 195 200 205

Gly Pro Val Gln Arg Ile Val Ile Phe Arg Lys Asn Gly Val Gln Ala  
 210 215 220

Met Val Glu Phe Asp Ser Val Gln Ser Ala Gln Arg Ala Lys Ala Ser  
 225 230 235 240

Leu Asn Gly Ala Asp Ile Tyr Ser Gly Cys Cys Thr Leu Lys Ile Glu  
 245 250 255

Tyr Ala Lys Pro Thr Arg Leu Asn Val Phe Lys Asn Asp Gln Asp Thr  
 260 265 270

Trp Asp Tyr Thr Asn Pro Asn Leu Ser Gly Gln Gly Asn Leu Asp Asp  
 275 280 285

His Phe Val Leu Asn Ile Pro Ala Leu Leu Ser Leu Asp  
 290 295 300

&lt;210&gt; 1355

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1355

Asn Thr Val Met Gly Arg Lys Lys Lys Lys Gln Leu Lys Pro Trp Cys  
 1 5 10 15

Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His  
 20 25 30

1402

Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr  
           35                                  40                                  45

Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr  
           50                                  55                                  60

Ile Asp Ala Val Pro Asn Ala Ile Pro Gly Arg Thr Asp Ile Glu Leu  
           65                                  70                                  75                                  80

Glu Ile Tyr Gly Met Glu Gly Ile Pro Glu Lys Asp Met Asp Glu Arg  
                                   85                                  90                                  95

Arg Arg Leu Leu Glu Gln Lys Thr Gln Glu Ser Gln Lys Lys Lys Gln  
                                   100                                  105                                  110

Gln Asp Asp Ser Asp Glu Tyr Asp Asp Asp Asp Ser Ala Ala Ser Thr  
           115                                  120                                  125

Ser Phe Gln Pro Gln Pro Val Gln Pro Gln Gln Gly Tyr Ile Pro Pro  
           130                                  135                                  140

Met Ala Gln Pro Gly Leu Pro Pro Val Pro Gly Ala Pro Gly Met Pro  
           145                                  150                                  155                                  160

Pro Gly Ile Pro Pro Leu Met Pro Gly Val Pro Pro Leu Met Pro Gly  
                                   165                                  170                                  175

Met Pro Pro Val Met Pro Gly Met Pro Pro Gly Leu His His Gln Arg  
                                   180                                  185                                  190

Lys Tyr Thr Gln Ser Phe Cys Gly Glu Asn Ile Met Met Pro Met Gly  
           195                                  200                                  205

Gly Met Met Pro Pro Gly Pro Gly Ile Pro Pro Leu Met Pro Gly Met  
           210                                  215                                  220

Pro Pro Gly Met Pro Pro Pro Val Pro Arg Pro Gly Ile Pro Pro Met  
           225                                  230                                  235                                  240

Thr Gln Ala Gln Ala Val Ser Ala Pro Gly Ile Leu Asn Arg Pro Pro  
                                   245                                  250                                  255

Ala Pro Thr Ala Thr Val Pro Ala Pro Gln Pro Pro Val Thr Lys Pro  
           260                                  265                                  270

Leu Phe Pro Ser Ala Gly Gln Ala Gln Ala Ala Val Gln Gly Pro Val  
           275                                  280                                  285

Gly Thr Asp Phe Lys Pro Leu Asn Ser Thr Pro Ala Thr Thr Thr Glu  
           290                                  295                                  300

1403

Pro Pro Lys Pro Thr Phe Pro Ala Tyr Thr Gln Ser Thr Ala Ser Thr  
 305 310 315 320  
 Thr Ser Thr Thr Asn Ser Thr Ala Ala Lys Pro Ala Ala Ser Ile Thr  
 325 330 335  
 Ser Lys Pro Ala Thr Leu Thr Thr Thr Ser Ala Thr Ser Lys Leu Ile  
 340 345 350  
 His Pro Asp Glu Asp Ile Ser Leu Glu Glu Arg Arg Ala Gln Leu Pro  
 355 360 365  
 Lys Tyr Gln Arg Asn Leu Pro Arg Pro Gly Gln Ala Pro Ile Gly Asn  
 370 375 380  
 Pro Pro Val Gly Pro Ile Gly Gly Met Met Pro Pro Gln Pro Gly Ile  
 385 390 395 400  
 Pro Gln Gln Gln Gly Met Arg Pro Pro Met Pro Pro His Gly Gln Tyr  
 405 410 415  
 Gly Gly His His Gln Gly Met Pro Gly Tyr Leu Pro Gly Ala Met Pro  
 420 425 430  
 Pro Tyr Gly Gln Gly Pro Pro Met Val Pro Pro Tyr Gln Gly Gly Pro  
 435 440 445  
 Pro Arg Pro Pro Met Gly Met Arg Pro Pro Val Met Ser Gln Gly Gly  
 450 455 460  
 Arg Tyr  
 465

&lt;210&gt; 1356

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1356

Leu Ser Asp Asp Gln Ser Leu Leu Ile Ile Leu Leu Leu Lys Gly Leu  
 1 5 10 15  
 Leu Thr Asn Leu Ser Phe Thr Pro Cys Gly Pro Cys Tyr Trp Tyr Thr  
 20 25 30  
 Gln Tyr Val Leu Thr Glu Asp Met Asp Phe Ile Cys Ser Ser Ala Gly  
 35 40 45  
 Ile Gly Lys Leu Asp Leu Phe Ser Met Ile Gln Asn Ser Pro Ile Arg

1404

50                      55                      60  
 Arg Leu Glu Lys Glu Glu Leu Tyr Ser Ser Leu Cys Tyr Phe Leu Leu  
 65                      70                      75                      80  
 Pro Phe Leu Phe Leu  
 85

<210> 1357  
 <211> 580  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (526)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1357  
 Asp Ser Xaa Thr Phe Asp Asp Leu Ala Val Asp Phe Thr Pro Glu Glu  
 1                      5                      10                      15

Trp Thr Leu Leu Asp Pro Thr Gln Arg Asn Leu Tyr Arg Asp Val Met  
 20                      25                      30

Leu Glu Asn Tyr Lys Asn Leu Ala Thr Val Gly Tyr Gln Leu Phe Lys  
 35                      40                      45

Pro Ser Leu Ile Ser Trp Leu Glu Gln Glu Glu Ser Arg Thr Val Gln  
 50                      55                      60

Arg Gly Asp Phe Gln Ala Ser Glu Trp Lys Val Gln Leu Lys Thr Lys  
 65                      70                      75                      80

Glu Leu Ala Leu Gln Gln Asp Val Leu Gly Glu Pro Thr Ser Ser Gly  
 85                      90                      95

Ile Gln Met Ile Gly Ser His Asn Gly Gly Glu Val Ser Asp Val Lys  
 100                      105                      110

Gln Cys Gly Asp Val Ser Ser Glu His Ser Cys Leu Lys Thr His Val  
 115                      120                      125

Arg Thr Gln Asn Ser Glu Asn Thr Phe Glu Cys Tyr Leu Tyr Gly Val



1405

130	135	140
Asp Phe Leu Thr Leu His Lys Lys Thr Ser Thr Gly Glu Gln Arg Ser		
145	150	155 160
Val Phe Ser Gln Cys Gly Lys Ala Phe Ser Leu Asn Pro Asp Val Val		
	165	170 175
Cys Gln Arg Thr Cys Thr Gly Glu Lys Ala Phe Asp Cys Ser Asp Ser		
	180	185 190
Gly Lys Ser Phe Ile Asn His Ser His Leu Gln Gly His Leu Arg Thr		
	195	200 205
His Asn Gly Glu Ser Leu His Glu Trp Lys Glu Cys Gly Arg Gly Phe		
	210	215 220
Ile His Ser Thr Asp Leu Ala Val Arg Ile Gln Thr His Arg Ser Glu		
	225	230 235 240
Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Gly Phe Arg Tyr Ser Ala		
	245	250 255
Tyr Leu Asn Ile His Met Gly Thr His Thr Gly Asp Asn Pro Tyr Glu		
	260	265 270
Cys Lys Glu Cys Gly Lys Ala Phe Thr Arg Ser Cys Gln Leu Thr Gln		
	275	280 285
His Arg Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Asp Cys		
	290	295 300
Gly Arg Ala Phe Thr Val Ser Ser Cys Leu Ser Gln His Met Lys Ile		
	305	310 315 320
His Val Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Ile Ala Phe		
	325	330 335
Thr Arg Ser Ser Gln Leu Thr Glu His Leu Lys Thr His Thr Ala Lys		
	340	345 350
Asp Pro Phe Glu Cys Lys Ile Cys Gly Lys Ser Phe Arg Asn Ser Ser		
	355	360 365
Cys Leu Ser Asp His Phe Arg Ile His Thr Gly Ile Lys Pro Tyr Lys		
	370	375 380
Cys Lys Asp Cys Gly Lys Ala Phe Thr Gln Asn Ser Asp Leu Thr Lys		
	385	390 395 400
His Ala Arg Thr His Ser Gly Glu Arg Pro Tyr Glu Cys Lys Glu Cys		

1406

405	410	415
Gly Lys Ala Phe Ala Arg Ser Ser Arg Leu Ser Glu His Thr Arg Thr		
420	425	430
His Thr Gly Glu Lys Pro Phe Glu Cys Val Lys Cys Gly Lys Ala Phe		
435	440	445
Ala Ile Ser Ser Asn Leu Ser Gly His Leu Arg Ile His Thr Gly Glu		
450	455	460
Lys Pro Phe Glu Cys Leu Glu Cys Gly Lys Ala Phe Thr His Ser Ser		
465	470	480
Ser Leu Asn Asn His Met Arg Thr His Ser Ala Lys Lys Pro Phe Thr		
485	490	495
Cys Met Glu Cys Gly Lys Ala Phe Lys Phe Pro Thr Cys Val Asn Leu		
500	505	510
His Met Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Xaa Gln Cys		
515	520	525
Gly Lys Ser Phe Ser Tyr Ser Asn Ser Phe Gln Leu His Glu Arg Thr		
530	535	540
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe		
545	550	555
Ser Ser Ser Ser Ser Phe Arg Asn His Glu Arg Arg His Ala Asp Glu		
565	570	575
Arg Leu Ser Ala		
580		

&lt;210&gt; 1358

&lt;211&gt; 612

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (445)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1407

&lt;400&gt; 1358

Glu Val Pro Glu Ala His Arg Ala Ser Pro Arg Glu Gly Thr Ser Gly  
 1 5 10 15  
 Gly Glu Arg Leu Gln Asp Leu Val Lys Ser Lys Met Ser Glu Thr Ser  
 20 25 30  
 Arg Thr Ala Phe Gly Gly Arg Arg Ala Val Pro Pro Asn Asn Ser Asn  
 35 40 45  
 Ala Ala Glu Asp Asp Leu Pro Thr Val Glu Leu Gln Gly Val Val Pro  
 50 55 60  
 Arg Gly Val Asn Leu Gln Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys  
 65 70 75 80  
 Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly  
 85 90 95  
 Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe Glu  
 100 105 110  
 Asp Gly Ile Leu Asp Thr Cys Leu Tyr Val Met Asp Arg Ala Gln Met  
 115 120 125  
 Asp Leu Ser Gly Arg Xaa Asn Pro Ile Lys Val Ser Arg Val Gly Ser  
 130 135 140  
 Ala Met Val Asn Ala Lys Asp Asp Glu Gly Val Leu Val Gly Ser Trp  
 145 150 155 160  
 Asp Asn Ile Tyr Ala Tyr Gly Val Pro Pro Ser Ala Trp Thr Gly Ser  
 165 170 175  
 Val Asp Ile Leu Leu Glu Tyr Arg Ser Ser Glu Asn Pro Val Arg Tyr  
 180 185 190  
 Gly Gln Cys Trp Val Phe Ala Gly Val Phe Asn Thr Phe Leu Arg Cys  
 195 200 205  
 Leu Gly Ile Pro Ala Arg Ile Val Thr Asn Tyr Phe Ser Ala His Asp  
 210 215 220  
 Asn Asp Ala Asn Leu Gln Met Asp Ile Phe Leu Glu Glu Asp Gly Asn  
 225 230 235 240  
 Val Asn Ser Lys Leu Thr Lys Asp Ser Val Trp Asn Tyr His Cys Trp  
 245 250 255  
 Asn Glu Ala Trp Met Thr Arg Pro Asp Leu Pro Val Gly Phe Gly Gly

1408

260										265					270				
Trp	Gln	Ala	Val	Asp	Ser	Thr	Pro	Gln	Glu	Asn	Ser	Asp	Gly	Met	Tyr				
		275						280					285						
Arg	Cys	Gly	Pro	Ala	Ser	Val	Gln	Ala	Ile	Lys	His	Gly	His	Val	Cys				
	290						295				300								
Phe	Gln	Phe	Asp	Ala	Pro	Phe	Val	Phe	Ala	Glu	Val	Asn	Ser	Asp	Leu				
305						310				315					320				
Ile	Tyr	Ile	Thr	Ala	Lys	Lys	Asp	Gly	Thr	His	Val	Val	Glu	Asn	Val				
				325					330					335					
Asp	Ala	Thr	His	Ile	Gly	Lys	Leu	Ile	Val	Thr	Lys	Gln	Ile	Gly	Gly				
			340					345					350						
Asp	Gly	Met	Met	Asp	Ile	Thr	Asp	Thr	Tyr	Lys	Phe	Gln	Glu	Gly	Gln				
		355					360					365							
Glu	Glu	Glu	Arg	Leu	Ala	Leu	Glu	Thr	Ala	Leu	Met	Tyr	Gly	Ala	Lys				
	370					375					380								
Lys	Pro	Leu	Asn	Thr	Glu	Gly	Val	Met	Lys	Ser	Arg	Ser	Asn	Val	Asp				
385					390				395					400					
Met	Asp	Phe	Glu	Val	Glu	Asn	Ala	Val	Leu	Gly	Lys	Asp	Phe	Lys	Leu				
			405					410					415						
Ser	Ile	Thr	Phe	Arg	Asn	Asn	Ser	His	Asn	Arg	Tyr	Thr	Ile	Thr	Ala				
			420					425					430						
Tyr	Leu	Ser	Ala	Asn	Ile	Thr	Phe	Tyr	Thr	Gly	Val	Xaa	Lys	Ala	Glu				
	435						440					445							
Phe	Lys	Lys	Glu	Thr	Phe	Asp	Val	Thr	Leu	Glu	Pro	Leu	Ser	Phe	Lys				
	450					455					460								
Lys	Glu	Ala	Val	Leu	Ile	Gln	Ala	Gly	Glu	Tyr	Met	Gly	Gln	Leu	Leu				
465					470				475					480					
Glu	Gln	Ala	Ser	Leu	His	Phe	Phe	Val	Thr	Ala	Arg	Ile	Asn	Glu	Thr				
			485					490					495						
Arg	Asp	Val	Leu	Ala	Lys	Gln	Lys	Ser	Thr	Val	Leu	Thr	Ile	Pro	Glu				
		500						505					510						
Ile	Ile	Ile	Lys	Val	Arg	Gly	Thr	Gln	Val	Val	Gly	Ser	Asp	Met	Thr				
	515						520					525							
Val	Thr	Val	Glu	Phe	Thr	Asn	Pro	Leu	Lys	Glu	Thr	Leu	Arg	Asn	Val				

1409

530                      535                      540  
 Trp Val His Leu Asp Gly Pro Gly Val Thr Arg Pro Met Lys Lys Met  
 545                      550                      555                      560  
 Phe Arg Glu Ile Arg Pro Asn Ser Thr Val Gln Trp Glu Glu Val Cys  
                     565                      570                      575  
 Arg Pro Trp Val Ser Gly His Arg Lys Leu Ile Ala Ser Met Ser Ser  
                     580                      585                      590  
 Asp Ser Leu Arg His Val Tyr Gly Glu Leu Asp Val Gln Ile Gln Arg  
                     595                      600                      605  
 Arg Pro Ser Met  
 610

&lt;210&gt; 1359

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1359

Leu Ser Cys Ile Val Leu Leu Arg Gln Ser Ser Val Lys Leu Tyr Gln  
 1                      5                      10                      15  
 Leu Arg Leu Val Ser Ser Asp Phe His Trp Gly Ile Arg Val Leu Ala  
                     20                      25                      30  
 Gly Leu Asn Leu Leu Leu Val Gly Ser Val Phe Leu Met Asn Lys Ser  
                     35                      40                      45  
 His Ser Thr Glu Leu Gln Val Ile  
                     50                      55

&lt;210&gt; 1360

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (368)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1410

<222> (374)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (379)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (381)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (384)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (385)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (386)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (389)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (397)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (404)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (405)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (409)

1411

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1360

Gly	Gly	Gly	Gly	Glu	Lys	Met	Ala	Asp	Asp	Pro	Ser	Ala	Ala	Asp	Arg
1				5				10						15	

Asn	Val	Glu	Ile	Trp	Lys	Ile	Lys	Lys	Leu	Ile	Lys	Ser	Leu	Glu	Ala
		20					25						30		

Ala	Arg	Gly	Asn	Gly	Thr	Ser	Met	Ile	Ser	Leu	Ile	Ile	Pro	Pro	Lys
		35					40					45			

Asp	Gln	Ile	Ser	Arg	Val	Ala	Lys	Met	Leu	Ala	Asp	Glu	Phe	Gly	Thr
	50						55				60				

Ala	Ser	Asn	Ile	Lys	Ser	Arg	Val	Asn	Arg	Leu	Ser	Val	Leu	Gly	Ala
65				70						75				80	

Ile	Thr	Ser	Val	Gln	Gln	Arg	Leu	Lys	Leu	Tyr	Asn	Lys	Val	Pro	Pro
			85						90					95	

Asn	Gly	Leu	Val	Val	Tyr	Cys	Gly	Thr	Ile	Val	Thr	Glu	Glu	Gly	Lys
		100						105					110		

Glu	Lys	Lys	Val	Asn	Ile	Asp	Phe	Glu	Pro	Phe	Lys	Pro	Ile	Asn	Thr
	115						120					125			

Ser	Leu	Tyr	Leu	Cys	Asp	Asn	Lys	Phe	His	Thr	Glu	Ala	Leu	Thr	Ala
	130						135					140			

Leu	Leu	Ser	Asp	Asp	Ser	Lys	Phe	Gly	Phe	Ile	Val	Ile	Asp	Gly	Ser
145						150				155				160	

Gly	Ala	Leu	Phe	Gly	Thr	Leu	Gln	Gly	Asn	Thr	Arg	Glu	Val	Leu	His
		165						170						175	

Lys	Phe	Thr	Val	Asp	Leu	Pro	Lys	Lys	His	Gly	Arg	Gly	Gly	Gln	Ser
		180						185					190		

Ala	Leu	Arg	Phe	Ala	Arg	Leu	Arg	Met	Glu	Lys	Arg	His	Asn	Tyr	Val
	195						200					205			

Arg	Lys	Val	Ala	Glu	Thr	Ala	Val	Gln	Leu	Phe	Ile	Ser	Gly	Asp	Lys
	210					215					220				

Val	Asn	Val	Ala	Gly	Leu	Val	Leu	Ala	Gly	Ser	Ala	Asp	Phe	Lys	Thr
225					230					235				240	

Glu	Leu	Ser	Gln	Ser	Asp	Met	Phe	Asp	Gln	Arg	Leu	Gln	Ser	Lys	Val
			245					250						255	

1412

Leu Lys Leu Val Asp Ile Ser Tyr Gly Gly Glu Asn Gly Phe Asn Gln  
                   260                  265                  270  
 Ala Ile Glu Leu Ser Thr Glu Val Leu Ser Asn Val Lys Phe Ile Gln  
                   275                  280                  285  
 Glu Lys Lys Leu Ile Gly Arg Tyr Phe Asp Glu Ile Ser Gln Asp Thr  
                   290                  295                  300  
 Gly Lys Tyr Cys Phe Gly Val Glu Asp Thr Leu Lys Ala Leu Glu Met  
                   305                  310                  315                  320  
 Gly Ala Val Glu Ile Leu Ile Val Tyr Glu Asn Leu Asp Ile Met Arg  
                   325                  330                  335  
 Tyr Val Leu His Cys Gln Gly Thr Glu Glu Glu Lys Ile Leu Tyr Leu  
                   340                  345                  350  
 Thr Pro Glu Gln Glu Lys Asp Lys Ser His Phe Thr Asp Lys Glu Xaa  
                   355                  360                  365  
 Arg Thr Gly Thr Met Xaa Leu Ser Arg Ala Xaa Pro Xaa Leu Glu Xaa  
                   370                  375                  380  
 Xaa Xaa Asn Asn Xaa Lys Lys Leu Gly Leu Pro Trp Xaa Ile Gly Pro  
                   385                  390                  395                  400  
 Ile Asn Ser Xaa Xaa Arg Gly Gln Xaa Trp Lys Arg Ile Gly Gly  
                   405                  410                  415

&lt;210&gt; 1361

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1361

His Ala Ser Ala Asp Ala Trp Ala Asp Ala Trp Val Ala Gly Ser Asp  
   1                  5                  10                  15  
 Phe Ile Lys Thr Ser Thr Gly Lys Glu Thr Val Asn Ala Thr Phe Pro  
                   20                  25                  30  
 Val Ala Ile Val Met Leu Arg Ala Ile Arg Asp Phe Phe Trp Lys Thr  
                   35                  40                  45  
 Gly Asn Lys Ile Gly Phe Lys Pro Ala Gly Gly Ile Arg Ser Ala Lys  
                   50                  55                  60  
 Asp Ser Leu Ala Trp Leu Ser Leu Val Lys Glu Glu Leu Gly Asp Glu



1413

65                      70                      75                      80  
 Trp Leu Lys Pro Glu Leu Phe Arg Ile Gly Ala Ser Thr Leu Leu Ser  
                             85                      90                      95  
 Asp Ile Glu Arg Gln Ile Tyr His His Val Thr Gly Arg Tyr Ala Ala  
                             100                      105                      110  
 Tyr His Asp Leu Pro Met Ser  
                             115

&lt;210&gt; 1362

&lt;211&gt; 282

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1362

Gly Arg Val Gly Gly Arg Val Gly Gly Arg Val Gly Phe Thr Ala Lys  
   1                      5                      10                      15

Val Trp Asp Ala Val Ser Gly Asp Glu Leu Met Thr Leu Ala His Lys  
                             20                      25                      30

His Xaa Xaa Lys Thr Val Asp Phe Thr Gln Asp Ser Asn Tyr Leu Leu  
                             35                      40                      45

Thr Gly Gly Gln Asp Lys Leu Leu Arg Ile Tyr Asp Leu Asn Lys Pro  
                             50                      55                      60

Glu Ala Glu Pro Lys Glu Ile Ser Gly His Thr Ser Gly Ile Lys Lys  
   65                      70                      75                      80

Ala Leu Trp Cys Ser Glu Asp Lys Gln Ile Leu Ser Ala Asp Asp Lys  
                             85                      90                      95

Thr Val Arg Leu Trp Asp His Ala Thr Met Thr Glu Val Lys Ser Leu  
                             100                      105                      110

Asn Phe Asn Met Ser Val Ser Ser Met Glu Tyr Ile Pro Glu Gly Glu

1414

115	120	125
Ile Leu Val Ile Thr Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val		
130	135	140
Ser Leu Asp Pro Ile Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser		
145	150	155 160
Ala Ser Leu His Pro Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp		
	165	170 175
Phe Lys Leu Tyr Lys Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser		
	180	185 190
Tyr Lys Gly His Phe Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp		
	195	200 205
Gly Glu Leu Tyr Ala Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp		
	210	215 220
Gln Thr Val Val Gly Lys Thr Tyr Gly Leu Trp Lys Cys Val Leu Pro		
	225	230 235 240
Glu Glu Asp Ser Gly Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu		
	245	250 255
Thr Thr Glu Glu Glu Leu Glu Glu Ile Ala Ser Glu Asn Ser Asp Cys		
	260	265 270
Ile Phe Pro Ser Ala Pro Asp Val Lys Ala		
	275	280

&lt;210&gt; 1363

&lt;211&gt; 334

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1363

Thr Pro Arg Thr Pro Glu Pro His Lys Pro Gly Leu Ala Met Lys Pro
1 5 10 15
Gly Phe Ser Pro Arg Gly Gly Gly Phe Gly Gly Arg Gly Gly Phe Gly
20 25 30
Asp Arg Gly Gly Arg Gly Gly Arg Gly Gly Phe Gly Gly Arg Gly
35 40 45
Arg Gly Gly Gly Phe Arg Gly Arg Gly Arg Gly Gly Gly Gly Gly
50 55 60

1415

Gly Gly Gly Gly Gly Gly Gly Gly Arg Gly Gly Gly Gly Phe His Ser Gly  
 65 70 75 80

Gly Asn Arg Gly Arg Gly Arg Gly Gly Lys Arg Gly Asn Gln Ser Gly  
 85 90 95

Lys Asn Val Met Val Glu Pro His Arg His Glu Gly Val Phe Ile Cys  
 100 105 110

Arg Gly Lys Glu Asp Ala Leu Val Thr Lys Asn Leu Val Pro Gly Glu  
 115 120 125

Ser Val Tyr Gly Glu Lys Arg Val Ser Ile Ser Glu Gly Asp Asp Lys  
 130 135 140

Ile Glu Tyr Arg Ala Trp Asn Pro Phe Arg Ser Lys Leu Ala Ala Ala  
 145 150 155 160

Ile Leu Gly Gly Val Asp Gln Ile His Ile Lys Pro Gly Ala Lys Val  
 165 170 175

Leu Tyr Leu Gly Ala Ala Ser Gly Thr Thr Val Ser His Val Ser Asp  
 180 185 190

Ile Val Gly Pro Asp Gly Leu Val Tyr Ala Val Glu Phe Ser His Arg  
 195 200 205

Ser Gly Arg Asp Leu Ile Asn Leu Ala Lys Lys Arg Thr Asn Ile Ile  
 210 215 220

Pro Val Ile Glu Asp Ala Arg His Pro His Lys Tyr Arg Met Leu Ile  
 225 230 235 240

Ala Met Val Asp Val Ile Phe Ala Asp Val Ala Gln Pro Asp Gln Thr  
 245 250 255

Arg Ile Val Ala Leu Asn Ala His Thr Phe Leu Arg Asn Gly Gly His  
 260 265 270

Phe Val Ile Ser Ile Lys Ala Asn Cys Ile Asp Ser Thr Ala Ser Ala  
 275 280 285

Glu Ala Val Phe Ala Ser Glu Val Lys Lys Met Gln Gln Glu Asn Met  
 290 295 300

Lys Pro Gln Glu Gln Leu Thr Leu Glu Pro Tyr Glu Arg Asp His Ala  
 305 310 315 320

Val Val Val Gly Val Tyr Arg Pro Pro Pro Lys Val Lys Asn  
 325 330

1416

&lt;210&gt; 1364

&lt;211&gt; 602

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (356)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1364

Pro Gly Ala Glu Lys Ser Gly Arg Ala Ala Glu Arg Pro Gly Arg Gly  
 1 5 10 15

Pro Gly Arg Gly Ala His Ser Arg Pro Thr Ala Pro Arg Glu Arg Ala  
 20 25 30

Pro Arg Ser Pro Ala Pro Ser Pro Pro Gly Met Gly Arg Ala Ala Ala  
 35 40 45

Ala Glu Ala Pro Ala Trp Pro Gly Arg Thr Arg Pro Glu Ala Glu Gly  
 50 55 60

Arg Ala Arg Ala Gln Leu Pro Gly His Gln Ile Gly Ala Arg Arg Ala  
 65 70 75 80

Gly Gly Pro Arg Ala Gly Leu Glu Met Ser Trp Pro Arg Arg Leu Leu  
 85 90 95

Leu Arg Tyr Leu Phe Pro Ala Leu Leu Leu His Gly Leu Gly Glu Gly  
 100 105 110

Ser Ala Leu Leu His Pro Asp Ser Arg Ser His Pro Arg Ser Leu Glu  
 115 120 125

Lys Ser Ala Trp Arg Ala Phe Lys Glu Ser Gln Cys His His Met Leu  
 130 135 140

Lys His Leu His Asn Gly Ala Arg Ile Thr Val Gln Met Pro Pro Thr  
 145 150 155 160

Ile Glu Gly His Trp Val Ser Thr Gly Cys Glu Val Arg Ser Gly Pro  
 165 170 175

Glu Phe Ile Thr Arg Ser Tyr Arg Phe Tyr His Asn Asn Thr Phe Lys  
 180 185 190

Ala Tyr Gln Phe Tyr Tyr Gly Ser Asn Arg Cys Thr Asn Pro Thr Tyr

1417

195	200	205
Thr Leu Ile Ile Arg Gly Lys Ile Arg Leu Arg Gln Ala Ser Trp Ile 210 215 220		
Ile Arg Gly Gly Thr Glu Ala Asp Tyr Gln Leu His Asn Val Gln Val 225 230 235 240		
Ile Cys His Thr Glu Ala Val Ala Glu Lys Leu Gly Gln Gln Val Asn 245 250 255		
Arg Thr Cys Pro Gly Phe Leu Ala Asp Gly Gly Pro Trp Val Gln Asp 260 265 270		
Val Ala Tyr Asp Leu Trp Arg Glu Glu Asn Gly Cys Glu Cys Thr Lys 275 280 285		
Ala Val Asn Phe Ala Met His Glu Leu Gln Leu Ile Arg Val Glu Lys 290 295 300		
Gln Tyr Leu His His Asn Leu Asp His Leu Val Glu Glu Leu Phe Leu 305 310 315 320		
Gly Asp Ile His Thr Asp Ala Thr Gln Arg Met Phe Tyr Arg Pro Ser 325 330 335		
Ser Tyr Gln Pro Pro Leu Gln Asn Ala Lys Asn His Asp His Ala Cys 340 345 350		
Ile Ala Cys Xaa Ile Ile Tyr Arg Ser Asp Glu His His Pro Pro Ile 355 360 365		
Leu Pro Pro Lys Ala Asp Leu Thr Ile Gly Leu His Gly Glu Trp Val 370 375 380		
Ser Gln Arg Cys Glu Val Arg Pro Glu Val Leu Phe Leu Thr Arg His 385 390 395 400		
Phe Ile Phe His Asp Asn Asn Asn Thr Trp Glu Gly His Tyr Tyr His 405 410 415		
Tyr Ser Asp Pro Val Cys Lys His Pro Thr Phe Ser Ile Tyr Ala Arg 420 425 430		
Gly Arg Tyr Ser Arg Gly Val Leu Ser Ser Arg Val Met Gly Gly Thr 435 440 445		
Glu Phe Val Phe Lys Val Asn His Met Lys Val Thr Pro Met Asp Ala 450 455 460		
Ala Thr Ala Ser Leu Leu Asn Val Phe Asn Gly Asn Glu Cys Gly Ala		

1418

465		470		475		480
Glu Gly Ser Trp Gln Val Gly Ile Gln Gln Asp Val Thr His Thr Asn						
	485		490		495	
Gly Cys Val Ala Leu Gly Ile Lys Leu Pro His Thr Glu Tyr Glu Ile						
	500		505		510	
Phe Lys Met Glu Gln Asp Ala Arg Gly Arg Tyr Leu Leu Phe Asn Gly						
	515		520		525	
Gln Arg Pro Ser Asp Gly Ser Ser Pro Asp Arg Pro Glu Lys Arg Ala						
	530		535		540	
Thr Ser Tyr Gln Met Pro Leu Val Gln Cys Ala Ser Ser Ser Pro Arg						
	545		550		555	560
Ala Glu Asp Leu Ala Glu Asp Ser Gly Ser Ser Leu Tyr Gly Arg Ala						
	565		570		575	
Pro Gly Arg His Thr Trp Ser Leu Leu Leu Ala Ala Leu Ala Cys Leu						
	580		585		590	
Val Pro Leu Leu His Trp Asn Ile Arg Arg						
	595		600			

&lt;210&gt; 1365

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

1419

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (141)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1365

Ser	Asn	Ser	Gly	Tyr	Pro	Phe	Trp	Thr	Pro	Ser	Met	Leu	Trp	Lys	Leu
1				5				10						15	

Cys	Thr	Phe	Thr	Leu	Leu	Asn	Lys	Ala	Xaa	Ser	Phe	Phe	Ser	Leu	Ser
			20					25					30		

Val	His	Val	Ser	Phe	Thr	His	Xaa	Gly	Gln	Leu	Pro	His	His	Phe	Phe
	35						40					45			

Gly	Val	Ala	Trp	Gln	Glu	Pro	Gln	Val	Leu	His	Leu	Gly	Glu	Pro	Asp
	50					55					60				

Arg	Arg	Leu	Gln	Lys	Arg	Ile	Lys	Ala	Ile	Lys	Leu	Gln	Xaa	Ile	Leu
65				70						75				80	

Gln	Met	Glu	Pro	Gln	Met	Ser	Ser	Ala	His	Gly	Phe	Tyr	Arg	Gly	Pro
			85					90						95	

Leu	Xaa	Gln	Pro	Ala	Gly	Pro	Ser	Ile	Thr	Leu	Glu	Asn	Ser	Pro	Leu
		100						105					110		

Glu	Asp	Thr	Lys	Leu	Gln	Gly	Pro	Phe	Phe	Thr	Pro	Asn	Gln	Gln	Glu
	115					120						125			

Val	Ala	Arg	Thr	Asp	Cys	His	Xaa	Val	Pro	Asn	Ser	Xaa	Xaa	Gly	Cys
	130					135					140				

Pro	Val	Leu	Glu	Ala	Gly	Phe	Arg	Gly	Gly	Ala	Gln	Leu	Gly
145					150					155			

&lt;210&gt; 1366

1420

<211> 466  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (205)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (220)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (347)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1366  
 Ser Thr Arg Xaa Arg Glu Gly Asn Ser His Ser Xaa Gly His Lys Thr  
           1                  5                  10                  15  
 Ile Gln Gly Ser Leu Gly Arg Leu Ser Ser Ala Val Pro Gly Ser Gly  
                   20                  25                  30  
 Ala Glu Leu Ser Pro Val Pro Asn Thr Asp Gly Thr Met Asn Ser Gly  
           35                  40                  45  
 His Ser Phe Ser Gln Thr Pro Ser Ala Ser Phe His Gly Ala Gly Gly  
           50                  55                  60  
 Gly Trp Gly Arg Pro Arg Ser Phe Pro Arg Ala Pro Thr Val His Gly  
           65                  70                  75                  80  
 Gly Ala Gly Gly Ala Arg Ile Ser Leu Ser Phe Thr Thr Arg Ser Cys  
                   85                  90                  95  
 Pro Pro Pro Gly Gly Ser Trp Gly Ser Gly Arg Ser Ser Pro Leu Leu  
           100                  105                  110



1421

Gly Gly Asn Gly Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala  
 115 120 125  
 Ser Tyr Leu Glu Lys Val Arg Ala Leu Glu Glu Ala Asn Met Lys Leu  
 130 135 140  
 Glu Ser Arg Ile Leu Lys Trp His Gln Gln Arg Asp Pro Gly Ser Lys  
 145 150 155 160  
 Lys Asp Tyr Ser Gln Tyr Glu Glu Asn Ile Thr His Leu Gln Glu Gln  
 165 170 175  
 Ile Val Asp Gly Lys Met Thr Asn Ala Gln Ile Ile Leu Leu Ile Asp  
 180 185 190  
 Asn Ala Arg Met Ala Val Asp Asp Phe Asn Leu Lys Xaa Glu Asn Glu  
 195 200 205  
 His Ser Phe Lys Lys Asp Leu Glu Ile Glu Val Xaa Gly Leu Arg Arg  
 210 215 220  
 Thr Leu Asp Asn Leu Thr Ile Val Thr Thr Asp Leu Glu Gln Glu Val  
 225 230 235 240  
 Glu Gly Met Arg Lys Glu Leu Ile Leu Met Lys Lys His His Glu Gln  
 245 250 255  
 Glu Met Glu Lys His His Val Pro Ser Asp Phe Asn Val Asn Val Lys  
 260 265 270  
 Val Asp Thr Gly Pro Arg Glu Asp Leu Ile Lys Val Leu Glu Asp Met  
 275 280 285  
 Arg Gln Glu Tyr Glu Leu Ile Ile Lys Lys Lys His Arg Asp Leu Asp  
 290 295 300  
 Thr Trp Tyr Lys Glu Gln Ser Ala Ala Met Ser Gln Glu Ala Ala Ser  
 305 310 315 320  
 Pro Ala Thr Val Gln Ser Arg Gln Gly Asp Ile His Glu Leu Lys Arg  
 325 330 335  
 Thr Phe Gln Ala Leu Glu Ile Asp Leu Gln Xaa Gln Tyr Ser Thr Lys  
 340 345 350  
 Ser Ala Leu Glu Asn Met Leu Ser Glu Thr Gln Ser Arg Tyr Ser Cys  
 355 360 365  
 Lys Leu Gln Asp Met Gln Glu Ile Ile Ser His Tyr Glu Glu Glu Leu  
 370 375 380

1422

Thr Gln Leu Arg His Glu Leu Glu Arg Gln Asn Asn Glu Tyr Gln Val  
385 390 395 400

Leu Leu Gly Ile Lys Thr His Leu Glu Lys Glu Ile Thr Thr Tyr Arg  
405 410 415

Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys Ser  
420 425 430

Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln Glu  
435 440 445

Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln Lys  
450 455 460

His Ala  
465

&lt;210&gt; 1367

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (138)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (141)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (143)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1423

&lt;221&gt; SITE

&lt;222&gt; (152)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1367

Leu Arg Phe Ala Ser Pro Gly Pro Gly Ala Gly Arg Ala Arg Asp Ser  
 1 5 10 15

Gln Arg Lys Trp Arg Arg Leu Arg Ala Arg Pro Leu Leu Gly Pro Gly  
 20 25 30

Gln Gly Trp Ser Trp Ala Gly Ile Pro Ser Ser Ala Ala Ala Gln Arg  
 35 40 45

Ala Gly Pro Pro Ala Gly Ala Leu Glu Ala Leu Ser Pro Gly Gly Ala  
 50 55 60

Arg Ala His Ala Glu Arg Arg Gly Glu Met Arg Ala Thr Pro Leu Ala  
 65 70 75 80

Ala Pro Ala Gly Ser Leu Ser Arg Lys Lys Arg Leu Glu Leu Asp Asp  
 85 90 95

Asn Leu Asp Thr Glu Arg Pro Val Gln Lys Arg Ala Arg Ser Gly Pro  
 100 105 110

Gln Pro Arg Leu Pro Pro Cys Leu Leu Pro Leu Ser Pro Pro Thr Ala  
 115 120 125

Pro Asp Arg Ala Thr Ala Val Xaa Thr Xaa Ser Arg Xaa Xaa Xaa Tyr  
 130 135 140

Val Leu Leu Glu Ala Arg Arg Xaa Ala  
 145 150

&lt;210&gt; 1368

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1424

&lt;400&gt; 1368

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Ser Asp Asn Xaa Thr Asn Gly Cys Gly Leu Glu Ser Xaa Gly Asn Thr
 1           5           10           15

Val Thr Pro Val Asn Val Asn Glu Val Lys Pro Ile Asn Lys Gly Glu
      20           25           30

Glu Gln Ile Gly Phe Glu Leu Val Glu Lys Leu Phe Gln Gly Gln Leu
      35           40           45

Val Leu Arg Thr Arg Cys Leu Glu Cys Glu Ser Leu Thr Glu Arg Arg
      50           55           60

Glu Asp Phe Gln Asp Ile Ser Val Pro Val Gln Glu Asp Glu Leu Ser
      65           70           75           80

Lys Val Glu Glu Ser Ser Glu Ile Ser Pro Glu Pro Lys Thr Glu Met
      85           90           95

Lys Thr Leu Arg Trp Ala Ile Ser Gln Phe Ala Ser Val Glu Arg Ile
      100          105          110

Val Gly Glu Asp Lys Tyr Phe Cys Glu Asn Cys His His Tyr Thr Glu
      115          120          125

Ala Glu Arg Ser Leu Leu Phe Asp Lys Met Pro Glu Val Ile Thr Ile
      130          135          140

His Leu Lys Cys Phe Ala Ala Ser Gly Leu Glu Phe Asp Cys Tyr Gly
      145          150          155          160

Gly Gly Leu Ser Lys Ile Asn Thr Pro Leu Leu Thr Pro Leu Lys Leu
      165          170          175

Ser Leu Glu Glu Trp Ser Thr Lys Pro Thr Asn Asp Ser Tyr Gly Leu
      180          185          190

Phe Ala Val Val Met His Ser Gly Ile Thr Ile Ser Ser Gly His Tyr
      195          200          205

Thr Ala Ser Val Lys Val Thr Asp Leu Asn Ser Leu Glu Leu Asp Lys
      210          215          220

Gly Asn Phe Val Val Asp Gln Met Cys Glu Ile Gly Lys Pro Glu Pro
      225          230          235          240

Leu Asn Glu Glu Glu Ala Arg Gly Val Val Glu Asn Tyr Asn Asp Glu
      245          250          255

Glu Val Ser Ile Arg Val Gly Gly Asn Thr Gln Pro Ser Lys Val Leu

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1425

260	265	270
Asn Lys Lys Asn Val Glu Ala Ile Gly Leu Leu Gly Gly Gln Lys Ser		
275	280	285
Lys Ala Asp Tyr Glu Leu Tyr Asn Lys Ala Ser Asn Pro Asp Lys Val		
290	295	300
Ala Ser Thr Ala Phe Ala Glu Asn Arg Asn Ser Glu Thr Ser Asp Thr		
305	310	315
Thr Gly Thr His Glu Ser Asp Arg Asn Lys Glu Ser Ser Asp Gln Thr		
325	330	335
Gly Ile Asn Ile Ser Gly Phe Glu Asn Lys Ile Ser Tyr Val Val Gln		
340	345	350
Ser Leu Lys Glu Tyr Glu Gly Lys Trp Leu Leu Phe Asp Asp Ser Glu		
355	360	365
Val Lys Val Thr Glu Glu Lys Asp Phe Leu Asn Ser Leu Ser Pro Ser		
370	375	380
Thr Ser Pro Thr Ser Thr Pro Tyr Leu Leu Phe Tyr Lys Lys Leu		
385	390	395

&lt;210&gt; 1369

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1369

Val Phe Xaa Ser Phe Phe Ala Glu Lys Glu Gln Gln Glu Ala Ile Glu		
1	5	10
His Ile Asp Glu Val Gln Asn Glu Ile Asp Arg Leu Asn Glu Gln Ala		
20	25	30
Ser Glu Glu Ile Leu Lys Val Glu Gln Lys Tyr Asn Lys Leu Arg Gln		
35	40	45
Pro Phe Phe Gln Lys Arg Ser Glu Leu Ile Ala Lys Ile Pro Asn Phe		
50	55	60

1426

Trp Val Thr Thr Phe Val Asn His Pro Gln Val Ser Ala Leu Leu Gly  
 65 70 75 80  
 Glu Glu Asp Glu Glu Ala Leu His Tyr Leu Thr Arg Val Glu Val Thr  
 85 90 95  
 Glu Phe Glu Asp Ile Lys Ser Gly Tyr Arg Ile Asp Phe Tyr Phe Asp  
 100 105 110  
 Glu Asn Pro Tyr Phe Glu Asn Lys Val Leu Ser Lys Glu Phe His Leu  
 115 120 125  
 Asn Glu Ser Gly Asp Pro Ser Ser Lys Ser Thr Glu Ile Lys Trp Lys  
 130 135 140  
 Ser Gly Lys Asp Leu Thr Lys Arg Ser Ser Gln Thr Gln Asn Lys Ala  
 145 150 155 160  
 Ser Arg Lys Arg Gln His Glu Glu Pro Glu Ser Phe Phe Thr Trp Phe  
 165 170 175  
 Thr Asp His Ser Asp Ala Gly Ala Asp Glu Leu Gly Glu Val Ile Lys  
 180 185 190  
 Asp Asp Ile Trp Pro Asn Pro Leu Gln Tyr Tyr Leu Val Pro Asp Met  
 195 200 205  
 Asp Asp Glu Glu Gly Glu Gly Glu Glu Asp Asp Asp Asp Asp Glu Glu  
 210 215 220  
 Glu Glu Gly Leu Glu Asp Ile Asp Glu Glu Gly Asp Glu Asp Glu Gly  
 225 230 235 240  
 Glu Glu Asp Glu Asp Asp Asp Glu Gly Glu Glu Gly Glu Glu Asp Glu  
 245 250 255  
 Gly Glu Asp Asp  
 260

&lt;210&gt; 1370

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1370

Lys Gly Glu Ala Ala Ala Phe Ser Ala Thr Phe Pro Ile Ala Arg Gln  
 1 5 10 15

Glu Phe Leu Ser Val Thr Thr Ile Ala Val Met Ser Gly Arg Gly Lys

1427

	20		25		30
Gln Gly Gly Lys Ala Arg Ala Lys Ala Lys Ser Arg Ser Ser Arg Ala					
	35		40		45
Gly Leu Gln Phe Pro Val Gly Glu Cys Ile Ala Leu Arg Lys Gly Asn					
	50		55		60
Tyr Ala Glu Arg Val Gly Ala Gly Ala Pro Val Tyr Met Ala Ala Val					
	65		70		75
					80
Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala					
		85		90	95
Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala					
	100		105		110
Ile Arg Asn Asp Glu Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile					
	115		120		125
Ala Gln Gly Gly Val Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys					
	130		135		140
Lys Thr Glu Ser His His Lys Ala Lys Gly Lys					
	145		150		155

&lt;210&gt; 1371

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1371

Phe Pro Gly Arg Thr His Ala Leu Cys Arg Gly Ala Ala Ser Arg Gly					
	1		5		10
					15
Leu Leu Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr					
		20		25	30
Arg Asp Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Asp Pro Thr					
	35		40		45
Ser Gln Gln Ala Lys Ala Trp Arg Pro Ser Pro Pro Ala Ala Arg Ser					
	50		55		60
Trp Pro Pro Thr Thr Thr Thr Gly Ala Ala Trp Val Pro Leu Pro Ala					
	65		70		75
					80
Thr Ala Pro Ala Ala Val Pro Ser Ala Pro Gly Lys Pro Phe Pro Thr					
		85		90	95

1428

Pro Gln Val Ser Pro Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser  
100 105 110

Phe Ser Gly Ser Pro Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro  
115 120 125

Gln Ser Thr Arg Asn Leu Pro Arg Pro Pro Ala Ala  
130 135 140

&lt;210&gt; 1372

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (126)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (147)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1372

Pro Trp Thr Leu Gly Gly Pro Glu Leu Asp Ala Met Gly Gly Cys Ala  
1 5 10 15



1429

Gly Ser Arg Arg Arg Phe Ser Asp Ser Glu Gly Glu Glu Thr Val Pro  
                   20                  25                  30  
 Glu Pro Arg Leu Pro Leu Leu Asp His Gln Gly Ala His Trp Lys Asn  
                   35                  40                  45  
 Ala Val Gly Phe Trp Leu Leu Gly Leu Cys Asn Asn Phe Ser Tyr Val  
                   50                  55                  60  
 Val Met Leu Ser Ala Ala His Asp Ile Leu Ser His Lys Arg Thr Ser  
                   65                  70                  75                  80  
 Gly Asn Gln Ser His Val Asp Pro Gly Pro Thr Pro Ile Pro His Asn  
                   85                  90                  95  
 Ser Ser Ser Arg Phe Asp Cys Asn Ser Val Ser Thr Ala Ala Val Leu  
                   100                  105                  110  
 Leu Ala Asp Ile Leu Pro Thr Leu Val Ile Lys Leu Leu Xaa Xaa Xaa  
                   115                  120                  125  
 Gly Leu His Leu Leu Pro Xaa Thr Val Glu Asp Ala Val Xaa Leu Cys  
                   130                  135                  140  
 Ala Leu Xaa Gly Thr Ala  
                   145                  150

&lt;210&gt; 1373

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1373

Arg His Ser Arg Val Asp Pro Arg Val Arg Ala Arg Phe Arg Arg Arg  
           1                  5                  10                  15

Arg Ala Phe Ala Xaa Leu Gly Trp Ser Ser Gly Arg Val Ser Arg Pro  
           20                  25                  30

1430

Glu His Val Asp Ala His Pro Pro Leu Ser Leu Met Glu Val Val Thr  
           35                          40                          45  
 Phe Gly Asp Val Ala Val His Phe Ser Arg Glu Glu Trp Gln Cys Leu  
           50                          55                          60  
 Asp Pro Gly Gln Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn His  
           65                          70                          75                          80  
 Ser Ser Val Ala Gly Leu Ala Gly Phe Leu Val Phe Lys Pro Glu Leu  
                           85                          90                          95  
 Ile Ser Arg Leu Glu Gln Gly Glu Glu Pro Trp Val Leu Asp Leu Gln  
                           100                          105                          110  
 Gly Ala Glu Gly Thr Glu Ala Pro Xaa Thr Ser Lys Thr Gly Glu Ala  
           115                          120                          125

&lt;210&gt; 1374

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1374

Ser Ser Trp Leu Arg Ser Arg Ser Gly Met Gln Thr Asp Leu Gln Asn  
   1                          5                          10                          15  
 Leu Gly Asn Asp Ser Gly Asp His Ser Asp His Met His Tyr Tyr Gln  
           20                          25                          30  
 Gly Lys Lys Tyr Phe Arg Asp Arg Arg Gly Gly Gly Arg Asn Ser Asp  
           35                          40                          45  
 Trp Ser Ser Asp Thr Asn Arg Gln Gly Gln Gln Ser Ser Ser Asp Cys  
   50                          55                          60  
 Tyr Ile Tyr Asp Ser Ala Thr Gly Tyr Tyr Tyr Asp Pro Leu Ala Gly  
   65                          70                          75                          80  
 Thr Tyr Tyr Asp Pro Asn Thr Gln Gln Glu Val Tyr Val Pro Gln Asp  
           85                          90                          95  
 Pro Gly Leu Pro Glu Glu Glu Glu Ile Lys Glu Lys Lys Pro Thr Ser  
           100                          105                          110  
 Gln Gly Lys Ser Ser Ser Lys Lys Glu Met Ser Lys Arg Asp Gly Lys

1431

115	120	125
Glu Lys Lys Asp Arg Gly Val Thr Arg Phe Gln Glu Asn Ala Ser Glu		
130	135	140
Gly Lys Ala Pro Ala Glu Asp Val Phe Lys Lys Pro Leu Pro Pro Thr		
145	150	155
Val Lys Lys Glu Glu Ser Pro Pro Pro Pro Lys Val Val Asn Pro Leu		
165	170	175
Ile Gly Leu Leu Gly Glu Tyr Gly Gly Asp Ser Asp Tyr Glu Glu Glu		
180	185	190
Glu Glu Glu Glu Gln Thr Pro Pro Pro Gln Pro Arg Thr Ala Gln Pro		
195	200	205
Gln Lys Arg Glu Glu Gln Thr Lys Lys Glu Asn Glu Glu Asp Lys Leu		
210	215	220
Thr Asp Trp Asn Lys Leu Ala Cys Leu Leu Cys Arg Arg Gln Phe Pro		
225	230	235
Asn Lys Glu Val Leu Ile Lys His Gln Gln Leu Ser Asp Leu His Lys		
245	250	255
Gln Asn Leu Glu Ile His Arg Lys Ile Lys Gln Ser Glu Gln Glu Leu		
260	265	270
Ala Tyr Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe Lys Gly Arg Gly		
275	280	285
Asn Asp Arg Arg Glu Lys Leu Gln Ser Phe Asp Ser Pro Glu Arg Lys		
290	295	300
Arg Ile Lys Tyr Ser Arg Glu Thr Asp Ser Asp Arg Lys Leu Val Asp		
305	310	315
Lys Glu Asp Ile Asp Thr Ser Ser Lys Gly Gly Cys Val Gln Gln Ala		
325	330	335
Thr Gly Trp Arg Lys Gly Thr Gly Leu Gly Tyr Gly His Pro Gly Leu		
340	345	350
Ala Ser Ser Glu Glu Ala Glu Gly Arg Met Arg Gly Pro Ser Val Gly		
355	360	365
Ala Ser Gly Arg Thr Ser Lys Arg Gln Ser Asn Glu Thr Tyr Arg Asp		
370	375	380
Ala Val Arg Arg Val Met Phe Ala Arg Tyr Lys Glu Leu Asp		

1432

385

390

395

&lt;210&gt; 1375

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (161)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (163)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1375

His	Arg	Gly	Lys	Arg	Tyr	Thr	Asp	Ser	Thr	Val	Arg	Asn	Ser	Arg	Val
1				5						10				15	

Asp	Pro	Arg	Val	Arg	Ser	Ala	Lys	Pro	Glu	Ser	Cys	Pro	Phe	Ser	Leu
			20						25					30	

Pro	Gly	Gln	His	Glu	Leu	His	His	Ser	Leu	His	Leu	Leu	His	Gln	Leu
		35					40					45			

Pro	Val	Pro	Gly	Leu	Cys	Pro	Gly	Ala	Gln	Leu	Arg	Arg	Pro	Ala	Gly
	50					55					60				

Gln	Gln	Arg	Gly	Gln	Arg	Leu	Cys	Arg	Arg	Trp	Gly	Leu	Trp	Phe	Pro
65					70					75					80

Asp	Leu	Arg	Val	Pro	Leu	His	Gln	Leu	Gln	Gly	Arg	His	Gly	Val	Arg
			85						90					95	

Gly	Pro	Gly	His	Arg	Asp	Ser	Arg	Gly	Ser	Gly	Arg	Asn	Gly	Ser	Ile
			100					105					110		

Gln	Asn	Glu	Lys	Glu	Thr	Met	Gln	Lys	Leu	Asn	Asp	Arg	Leu	Ala	Ser
		115						120					125		

Tyr	Leu	Asp	Lys	Met	Lys	Glu	Pro	Gly	Asp	Arg	Glu	Thr	Gly	Gly	Trp
	130						135						140		

1433

Lys Ala Lys Thr Arg Glu His Phe Gly Glu Glu Gly Xaa Gln Val Arg  
 145 150 155 160

Xaa Trp Xaa Pro Leu Ile Gln  
 165

&lt;210&gt; 1376

&lt;211&gt; 448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1376

Leu Pro Asp Val Glu Lys Leu Gly Arg Arg Arg Gly Arg Lys Met Asp  
 1 5 10 15

Ser Val Glu Lys Gly Ala Ala Thr Ser Val Ser Asn Pro Arg Gly Arg  
 20 25 30

Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg Gly Gly  
 35 40 45

Gln Gly Arg Gly Val Glu Lys Pro Pro His Leu Ala Ala Leu Ile Leu  
 50 55 60

Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys His Leu  
 65 70 75 80

Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu Asp Ser  
 85 90 95

Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu Ile Glu  
 100 105 110

Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser Ser Glu  
 115 120 125

Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu Phe Leu  
 130 135 140

Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala Thr Ser  
 145 150 155 160

Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met Ile Arg  
 165 170 175

Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His Gln Phe  
 180 185 190

1434

Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu Pro Leu  
 195 200 205  
 Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp Gly Glu  
 210 215 220  
 Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu Ile Glu  
 225 230 235 240  
 Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met Arg Ala  
 245 250 255  
 Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile Ala Glu  
 260 265 270  
 Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu Lys Glu  
 275 280 285  
 Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn Gly His  
 290 295 300  
 Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp Val Lys  
 305 310 315 320  
 Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu Val Arg  
 325 330 335  
 Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser Leu Lys  
 340 345 350  
 Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala Val Val  
 355 360 365  
 Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val Ala Tyr  
 370 375 380  
 Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val Gly Leu  
 385 390 395 400  
 Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala Val Gly  
 405 410 415  
 Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu Phe Ala  
 420 425 430  
 Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys Gln Lys  
 435 440 445

1435

&lt;210&gt; 1377

&lt;211&gt; 469

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1377

Gly Gly Pro Ala Lys Met Ala Ala Ser Cys Leu Val Leu Leu Ala Leu  
 1 5 10 15

Cys Leu Leu Leu Pro Leu Leu Leu Leu Gly Gly Trp Lys Arg Trp Arg  
 20 25 30

Arg Gly Arg Ala Ala Arg His Val Val Ala Val Val Leu Gly Asp Val  
 35 40 45

Gly Arg Ser Pro Arg Met Gln Tyr His Ala Leu Ser Leu Ala Met His  
 50 55 60

Gly Phe Ser Val Thr Leu Leu Gly Phe Cys Asn Ser Lys Pro His Asp  
 65 70 75 80

Glu Leu Leu Gln Asn Asn Arg Ile Gln Ile Val Gly Leu Thr Glu Leu  
 85 90 95

Gln Ser Leu Ala Val Gly Pro Arg Val Phe Gln Tyr Gly Val Lys Val  
 100 105 110

Val Leu Gln Ala Met Tyr Leu Leu Trp Lys Leu Met Trp Arg Glu Pro  
 115 120 125

Gly Ala Tyr Ile Phe Leu Gln Asn Pro Pro Gly Leu Pro Ser Ile Ala  
 130 135 140

Val Cys Trp Phe Val Gly Cys Leu Cys Gly Ser Lys Leu Val Ile Asp  
 145 150 155 160

Trp His Asn Tyr Gly Tyr Ser Ile Met Gly Leu Val His Gly Pro Asn  
 165 170 175

His Pro Leu Val Leu Leu Ala Lys Trp Tyr Glu Lys Phe Phe Gly Arg  
 180 185 190

Leu Ser His Leu Asn Leu Cys Val Thr Asn Ala Met Arg Glu Asp Leu  
 195 200 205

Ala Asp Asn Trp His Ile Arg Ala Val Thr Val Tyr Asp Lys Pro Ala  
 210 215 220

Ser Phe Phe Lys Glu Thr Pro Leu Asp Leu Gln His Arg Leu Phe Met

1436

225		230		235		240									
Lys	Leu	Gly	Ser	Met	His	Ser	Pro	Phe	Arg	Ala	Arg	Ser	Glu	Pro	Glu
				245					250					255	
Asp	Pro	Val	Thr	Glu	Arg	Ser	Ala	Phe	Thr	Glu	Arg	Asp	Ala	Gly	Ser
			260					265					270		
Gly	Leu	Val	Thr	Arg	Leu	Arg	Glu	Arg	Pro	Ala	Leu	Leu	Val	Ser	Ser
		275					280					285			
Thr	Ser	Trp	Thr	Glu	Asp	Glu	Asp	Phe	Ser	Ile	Leu	Leu	Ala	Ala	Leu
	290					295				300					
Glu	Lys	Phe	Glu	Gln	Leu	Thr	Leu	Asp	Gly	His	Asn	Leu	Pro	Ser	Leu
305					310					315				320	
Val	Cys	Val	Ile	Thr	Gly	Lys	Gly	Pro	Leu	Arg	Glu	Tyr	Tyr	Ser	Arg
			325					330						335	
Leu	Ile	His	Gln	Lys	His	Phe	Gln	His	Ile	Gln	Val	Cys	Thr	Pro	Trp
		340					345					350			
Leu	Glu	Ala	Glu	Asp	Tyr	Pro	Leu	Leu	Leu	Gly	Ser	Ala	Asp	Leu	Gly
		355					360					365			
Val	Cys	Leu	His	Thr	Ser	Ser	Ser	Gly	Leu	Asp	Leu	Pro	Met	Lys	Val
	370					375					380				
Val	Asp	Met	Phe	Gly	Cys	Cys	Leu	Pro	Val	Cys	Ala	Val	Asn	Phe	Lys
385					390					395				400	
Cys	Leu	His	Glu	Leu	Val	Lys	His	Glu	Glu	Asn	Gly	Leu	Val	Phe	Glu
			405					410						415	
Asp	Ser	Glu	Glu	Leu	Ala	Ala	Gln	Leu	Gln	Met	Leu	Phe	Ser	Asn	Phe
		420					425					430			
Pro	Asp	Pro	Ala	Gly	Lys	Leu	Asn	Gln	Phe	Arg	Lys	Asn	Leu	Arg	Glu
	435						440					445			
Ser	Gln	Gln	Leu	Arg	Trp	Asp	Glu	Ser	Trp	Val	Gln	Thr	Val	Leu	Pro
	450					455					460				
Leu	Val	Met	Asp	Thr											
465															

&lt;210&gt; 1378

&lt;211&gt; 314



1437

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1378

Glu	Lys	Ala	Ala	Gly	Ala	Gly	Lys	Ser	His	Leu	Ala	Ile	Val	Gln	Lys	1	5	10	15
Val	Asn	Asn	Glu	Gly	Glu	Gly	Asp	Pro	Phe	Tyr	Glu	Val	Leu	Gly	Leu	20	25	30	
Val	Thr	Leu	Glu	Asp	Val	Ile	Glu	Glu	Ile	Ile	Lys	Ser	Glu	Ile	Leu	35	40	45	
Asp	Glu	Ser	Asp	Met	Tyr	Thr	Asp	Asn	Arg	Ser	Arg	Lys	Arg	Val	Ser	50	55	60	
Glu	Lys	Asn	Lys	Arg	Asp	Phe	Ser	Ala	Phe	Lys	Asp	Ala	Asp	Asn	Glu	65	70	75	80
Leu	Lys	Val	Lys	Ile	Ser	Pro	Gln	Leu	Leu	Leu	Ala	Xaa	His	Arg	Phe	85	90	95	
Leu	Ala	Thr	Glu	Val	Ser	Gln	Phe	Ser	Pro	Ser	Leu	Ile	Ser	Glu	Lys	100	105	110	
Ile	Leu	Leu	Arg	Leu	Leu	Lys	Tyr	Pro	Asp	Val	Ile	Gln	Glu	Leu	Lys	115	120	125	
Phe	Asp	Glu	His	Asn	Lys	Tyr	Tyr	Ala	Arg	His	Tyr	Leu	Tyr	Thr	Arg	130	135	140	
Asn	Lys	Pro	Ala	Asp	Tyr	Phe	Ile	Leu	Ile	Leu	Gln	Gly	Lys	Val	Glu	145	150	155	160
Val	Glu	Ala	Gly	Lys	Glu	Asn	Met	Lys	Phe	Glu	Thr	Gly	Ala	Phe	Ser	165	170	175	
Tyr	Tyr	Gly	Thr	Met	Ala	Leu	Thr	Ser	Val	Pro	Ser	Asp	Arg	Ser	Pro	180	185	190	
Ala	His	Pro	Thr	Pro	Leu	Ser	Arg	Ser	Ala	Ser	Leu	Ser	Tyr	Pro	Asp	195	200	205	
Arg	Thr	Asp	Val	Ser	Thr	Ala	Ala	Thr	Leu	Ala	Gly	Ser	Ser	Asn	Gln	210	215	220	

1438

Phe Gly Ser Ser Val Leu Gly Gln Tyr Ile Ser Asp Phe Ser Val Arg  
 225 230 235 240  
 Ala Leu Val Asp Leu Gln Tyr Ile Lys Ile Thr Arg Gln Gln Tyr Gln  
 245 250 255  
 Asn Gly Leu Leu Ala Ser Arg Met Glu Asn Ser Pro Gln Phe Pro Ile  
 260 265 270  
 Asp Gly Cys Thr Thr His Met Glu Asn Leu Ala Glu Lys Ser Glu Leu  
 275 280 285  
 Pro Val Val Asp Glu Thr Thr Thr Leu Leu Asn Glu Arg Asn Ser Leu  
 290 295 300  
 Leu His Lys Ala Ser His Glu Asn Ala Ile  
 305 310

&lt;210&gt; 1379

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1379

Ser Cys Pro Val Leu Lys Met Phe Pro Glu Gln Gln Lys Glu Glu Phe  
 1 5 10 15  
 Val Ser Val Trp Val Arg Asp Pro Arg Ile Gln Lys Glu Asp Phe Trp  
 20 25 30  
 His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met Cys  
 35 40 45  
 Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu Phe Val  
 50 55 60  
 Trp Leu Arg Gln Arg Leu Gln Ser Asn Ala Leu Leu Val Gln Leu Pro  
 65 70 75 80  
 Glu Leu Pro Ser Lys Asn Leu Phe Phe Asn Met Asn Asn Arg Gln His  
 85 90 95  
 Val Asp Gln Arg Arg Gln Gly Leu Gly Asn Phe Leu Arg Lys Val Leu  
 100 105 110  
 Gln Met His Phe Cys Phe Gln Ile Ala Ala Phe Thr Ser Ser Leu Gln  
 115 120 125  
 Ser His Leu

1439

130

&lt;210&gt; 1380

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1380

Pro Gly Ala Ala Trp Ser Arg Pro Asp Leu Arg Gly Cys Cys Thr Gly  
1 5 10 15

Pro Gln Pro Ala Leu Arg Met Leu Val Leu Pro Ser Pro Cys Pro Gln  
20 25 30

Pro Leu Ala Phe Ser Ser Val Glu Thr Met Glu Gly Pro Pro Arg Arg  
35 40 45

Thr Cys Arg Ser Pro Glu Pro Gly Pro Ser Ser Ser Ile Gly Ser Pro  
50 55 60

Gln Ala Ser Ser Pro Pro Arg Pro Asn His Tyr Leu Leu Ile Asp Thr  
65 70 75 80

Gln Gly Val Pro Tyr Thr Val Leu Val Asp Glu Glu Ser Gln Arg Glu  
85 90 95

Pro Gly Ala Ser Gly Ala Pro Gly Gln Lys Lys Cys Tyr Ser Cys Pro  
100 105 110

Val Cys Ser Arg Val Phe Glu Tyr Met Ser Tyr Leu Gln Arg His Ser  
115 120 125

Ile Thr His Ser Glu Val Lys Pro Phe Glu Cys Asp Ile Cys Gly Lys  
130 135 140

Ala Phe Lys Arg Ala Ser His Leu Ala Arg His His Ser Ile His Leu  
145 150 155 160

Ala Gly Gly Gly Arg Pro His Gly Cys Pro Leu Cys Pro Arg Arg Phe  
165 170 175

Arg Asp Ala Gly Glu Leu Ala Gln His Ser Arg Val His Ser Gly Glu  
180 185 190

Arg Pro Phe Gln Cys Pro His Cys Pro Arg Arg Phe Met Glu Gln Asn  
195 200 205

Thr Leu Gln Lys His Thr Arg Trp Lys His Pro  
210 215

1440

&lt;210&gt; 1381

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1381

Gly	Val	Ala	Leu	Phe	Lys	Ser	Ala	Ala	Gly	Asp	Gln	Pro	Thr	Ala	Ala
1				5					10					15	
Cys	Ile	Cys	Ile	Gln	Arg	Gln	Val	Pro	Pro	Val	Pro	Ala	Ala	Arg	Ala
			20					25					30		
Pro	Gln	Ser	Arg	Thr	Arg	Ser	Ala	Gln	Ala	Lys	Leu	Ala	Leu	Thr	Met
		35					40				45				
Pro	Val	Lys	Gly	Gly	Thr	Lys	Cys	Ile	Lys	Tyr	Leu	Leu	Phe	Gly	Phe
	50					55					60				
Asn	Phe	Ile	Phe	Trp	Leu	Ala	Gly	Ile	Ala	Val	Leu	Ala	Ile	Gly	Leu
65					70					75					80
Trp	Leu	Arg	Phe	Asp	Ser	Gln	Thr	Lys	Ser	Ile	Phe	Glu	Gln	Glu	Thr
			85						90					95	
Asn	Asn	Asn	Asn	Ser	Ser	Phe	Tyr	Thr	Gly	Val	Tyr	Ile	Leu	Ile	Gly
			100						105				110		
Ala	Gly	Ala	Leu	Met	Met	Leu	Val	Gly	Phe	Leu	Gly	Cys	Cys	Gly	Ala
		115					120					125			
Val	Gln	Glu	Ser	Gln	Cys	Met	Leu	Gly	Leu	Phe	Phe	Gly	Phe	Leu	Leu
	130					135					140				
Val	Ile	Phe	Ala	Ile	Glu	Ile	Ala	Ala	Ala	Ile	Trp	Gly	Tyr	Ser	His
145					150					155					160
Lys	Asp	Glu	Val	Ile	Lys	Glu	Val	Gln	Glu	Phe	Tyr	Lys	Asp	Thr	Tyr
			165						170					175	
Asn	Lys	Leu	Lys	Thr	Lys	Asp	Glu	Pro	Gln	Arg	Glu	Thr	Leu	Lys	Ala
		180							185				190		
Ile	His	Tyr	Ala	Leu	Asn	Cys	Cys	Gly	Leu	Ala	Gly	Gly	Val	Glu	Gln
	195						200					205			
Phe	Ile	Ser	Asp	Ile	Cys	Pro	Lys	Lys	Asp	Val	Leu	Glu	Thr	Phe	Thr
	210					215					220				

[44]

Val Lys Ser Cys Pro Asp Ala Ile Lys Glu Val Phe Asp Asn Lys Phe  
 225 230 235 240

His Ile Ile Gly Ala Val Gly Ile Gly Ile Ala Val Val Met Ile Phe  
 245 250 255

Gly Met Ile Phe Ser Met Ile Leu Cys Cys Ala Ile Arg Arg Asn Arg  
 260 265 270

Glu Met Val  
 275

&lt;210&gt; 1382

&lt;211&gt; 766

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1382

Pro Cys Trp Glu Leu Val Gly Pro Pro Gly Trp Gln Xaa Ile Arg Ala  
 1 5 10 15

Xaa Pro Ala Thr Val His Arg Ala Glu Ile Leu Ser Phe Pro Arg Ser  
 20 25 30

Lys Thr Ser Glu Pro Ala Lys Arg Gly Arg Thr Ala Ser Ala Ala Met  
 35 40 45

Ala Leu Lys Asp Tyr Ala Leu Glu Lys Glu Lys Val Lys Lys Phe Leu  
 50 55 60

Gln Glu Phe Tyr Gln Asp Asp Glu Leu Gly Lys Lys Gln Phe Lys Tyr  
 65 70 75 80

Gly Asn Gln Leu Val Arg Leu Ala His Arg Glu Gln Val Ala Leu Tyr

1442

85	90	95
Val Asp Leu Asp Asp Val Ala Glu Asp Asp Pro Glu Leu Val Asp Ser		
100	105	110
Ile Cys Glu Asn Ala Arg Arg Tyr Ala Lys Xaa Phe Ala Asp Ala Val		
115	120	125
Gln Glu Leu Leu Pro Gln Tyr Lys Glu Arg Glu Val Val Asn Lys Asp		
130	135	140
Val Leu Asp Val Tyr Ile Glu His Arg Leu Met Met Glu Gln Arg Ser		
145	150	155
Arg Asp Pro Gly Met Val Arg Ser Pro Gln Asn Gln Tyr Pro Ala Glu		
165	170	175
Leu Met Arg Arg Phe Glu Leu Tyr Phe Gln Gly Pro Ser Ser Asn Lys		
180	185	190
Pro Arg Val Ile Arg Glu Val Arg Ala Asp Ser Val Gly Lys Leu Val		
195	200	205
Thr Val Arg Gly Ile Val Thr Arg Val Ser Glu Val Lys Pro Lys Met		
210	215	220
Val Val Ala Thr Tyr Thr Cys Asp Gln Cys Gly Ala Glu Thr Tyr Gln		
225	230	235
Pro Ile Gln Ser Pro Thr Phe Met Pro Leu Ile Met Cys Pro Ser Gln		
245	250	255
Glu Cys Gln Thr Asn Arg Ser Gly Gly Arg Leu Tyr Leu Gln Thr Arg		
260	265	270
Gly Ser Arg Phe Ile Lys Phe Gln Glu Met Lys Met Gln Glu His Ser		
275	280	285
Asp Gln Val Pro Val Gly Asn Ile Pro Arg Ser Ile Thr Val Leu Val		
290	295	300
Glu Gly Glu Asn Thr Arg Ile Ala Gln Pro Gly Asp His Val Ser Val		
305	310	315
Thr Gly Ile Phe Leu Pro Ile Leu Arg Thr Gly Phe Arg Gln Val Val		
325	330	335
Gln Gly Leu Leu Ser Glu Thr Tyr Leu Glu Ala His Arg Ile Val Lys		
340	345	350
Met Asn Lys Ser Glu Asp Asp Glu Ser Gly Ala Gly Glu Leu Thr Arg		

1443

355	360	365
Glu Glu Leu Arg Gln Ile Ala	Glu Glu Asp Phe Tyr Glu Lys Leu Ala	
370	375	380
Ala Ser Ile Ala Pro Glu Ile Tyr Gly His Glu Asp Val Lys Lys Ala		
385	390	395 400
Leu Leu Leu Leu Leu Val Gly Gly Val Asp Gln Ser Pro Arg Gly Met		
405	410	415
Lys Ile Arg Gly Asn Ile Asn Ile Cys Leu Met Gly Asp Pro Gly Val		
420	425	430
Ala Lys Ser Gln Leu Leu Ser Tyr Ile Asp Arg Leu Ala Pro Arg Ser		
435	440	445
Gln Tyr Thr Thr Gly Arg Gly Ser Ser Gly Val Gly Leu Thr Ala Ala		
450	455	460
Val Leu Arg Asp Ser Val Ser Gly Glu Leu Thr Leu Glu Gly Gly Ala		
465	470	475 480
Leu Val Leu Ala Asp Gln Gly Val Cys Cys Ile Asp Glu Phe Asp Lys		
485	490	495
Met Ala Glu Ala Asp Arg Thr Ala Ile His Glu Val Met Glu Gln Gln		
500	505	510
Thr Ile Ser Ile Ala Lys Ala Gly Ile Leu Thr Thr Leu Asn Ala Arg		
515	520	525
Cys Ser Ile Leu Ala Ala Ala Asn Pro Ala Tyr Gly Arg Tyr Asn Pro		
530	535	540
Arg Arg Ser Leu Glu Gln Asn Ile Gln Leu Pro Ala Ala Leu Leu Ser		
545	550	555 560
Arg Phe Asp Leu Leu Trp Leu Ile Gln Asp Arg Pro Asp Arg Asp Asn		
565	570	575
Asp Leu Arg Leu Ala Gln His Ile Thr Tyr Val His Gln His Ser Arg		
580	585	590
Gln Pro Pro Ser Gln Phe Glu Pro Leu Asp Met Lys Leu Met Arg Arg		
595	600	605
Tyr Ile Ala Met Cys Arg Glu Lys Gln Pro Met Val Pro Glu Ser Leu		
610	615	620
Ala Asp Tyr Ile Thr Ala Ala Tyr Val Glu Met Arg Arg Glu Ala Trp		

1444

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625                630                635                640
Ala Ser Lys Asp Ala Thr Tyr Thr Ser Ala Arg Thr Leu Leu Ala Ile
      645                650                655
Leu Arg Leu Ser Thr Ala Leu Ala Arg Leu Arg Met Val Asp Val Val
      660                665                670
Glu Lys Glu Asp Val Asn Glu Ala Ile Arg Leu Met Glu Met Ser Lys
      675                680                685
Asp Ser Leu Leu Gly Asp Lys Gly Gln Thr Ala Arg Thr Gln Arg Pro
      690                695                700
Ala Asp Val Ile Phe Ala Thr Val Arg Glu Leu Val Ser Gly Gly Arg
      705                710                715                720
Ser Val Arg Phe Ser Glu Ala Glu Gln Arg Cys Val Ser Arg Gly Phe
      725                730                735
Thr Pro Ala Gln Phe Gln Ala Ala Leu Asp Glu Tyr Glu Glu Leu Asn
      740                745                750
Val Trp Gln Val Asn Ala Ser Arg Thr Arg Ile Thr Phe Val
      755                760                765

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&lt;210&gt; 1383

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1383

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Phe Arg Pro Gly Ser Pro Arg Gln Pro Arg Ala Gln Pro Ile Ser Ala
  1                5                10                15
Pro Asp Cys Thr Arg Ala Met Val Gly Arg Arg Ala Leu Ile Val Leu
      20                25                30
Ala His Ser Glu Arg Thr Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala
      35                40                45
Ala Ala Ala Leu Lys Lys Lys Gly Trp Glu Val Val Glu Ser Asp Leu
      50                55                60
Tyr Ala Met Asn Phe Asn Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly
      65                70                75                80
Lys Leu Lys Asp Pro Ala Asn Phe Gln Tyr Pro Ala Glu Ser Val Leu
      85                90                95

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1445

Ala Tyr Lys Glu Gly His Leu Ser Pro Asp Ile Val Ala Glu Gln Lys  
 100 105 110

Lys Leu Glu Ala Ala Asp Leu Val Ile Phe Gln Phe Pro Leu Gln Trp  
 115 120 125

Phe Gly Val Pro Ala Ile Leu Lys Gly Trp Phe Glu Arg Val Phe Ile  
 130 135 140

Gly Glu Phe Ala Tyr Thr Tyr Ala Ala Met Tyr Asp Lys Gly Pro Phe  
 145 150 155 160

Arg Ser Lys Lys Ala Val Leu Ser Ile Thr Thr Gly Gly Ser Gly Ser  
 165 170 175

Met Tyr Ser Leu Gln Gly Ile His Gly Asp Met Asn Val Ile Leu Trp  
 180 185 190

Pro Ile Gln Ser Gly Ile Leu His Phe Cys Gly Phe Gln Val Leu Glu  
 195 200 205

Pro Gln Leu Thr Tyr Ser Ile Gly His Thr Pro Ala Asp Ala Arg Ile  
 210 215 220

Gln Ile Leu Glu Gly Trp Lys Lys Arg Leu Glu Asn Ile Trp Asp Glu  
 225 230 235 240

Thr Pro Leu Tyr Phe Ala Pro Ser Ser Leu Phe Asp Leu Asn Phe Gln  
 245 250 255

Ala Gly Phe Leu Met Lys Lys Glu Val Gln Asp Glu Glu Lys Asn Lys  
 260 265 270

Lys Phe Gly Leu Ser Val Gly His His Leu Gly Lys Ser Ile Pro Thr  
 275 280 285

Asp Asn Gln Ile Lys Ala Arg Lys  
 290 295

&lt;210&gt; 1384

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1384

Asp Pro Arg Thr Met Asn Leu Ala Ile Ser Ile Ala Leu Leu Leu Thr  
 1 5 10 15

1446

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys  
                   20                  25                  30  
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser  
                   35                  40                  45  
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys  
                   50                  55                  60  
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser  
                   65                  70                  75                  80  
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser  
                   85                  90                  95  
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His  
                   100                  105                  110  
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg  
                   115                  120                  125  
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr  
                   130                  135                  140  
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr  
                   145                  150                  155                  160  
 Asp Phe Met Ser Leu  
                   165

&lt;210&gt; 1385

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1385

His Glu Arg Thr Pro Ser Arg Pro Gln Pro Asp Thr Pro Arg Gly Pro  
           1                  5                  10                  15  
 Pro Val Ser Arg Gly Cys Ser Pro Arg His Gly Thr Gly Pro Arg Leu  
                   20                  25                  30  
 Thr Met Ala Ala Ala Arg His Ser Thr Leu Asp Phe Met Leu Gly Ala  
                   35                  40                  45  
 Lys Ala Asp Gly Glu Thr Ile Leu Lys Gly Leu Gln Ser Ile Phe Gln  
                   50                  55                  60  
 Glu Gln Gly Met Ala Glu Ser Val His Thr Trp Gln Asp His Gly Tyr

1447

65		70		75		80
Leu Ala Thr Tyr Thr Asn Lys Asn Gly Ser Phe Ala Asn Leu Arg Ile						
	85			90		95
Tyr Pro His Gly Leu Val Leu Leu Asp Leu Gln Ser Tyr Asp Gly Asp						
	100			105		110
Ala Gln Gly Lys Glu Glu Ile Asp Ser Ile Leu Asn Lys Val Glu Glu						
	115			120		125
Arg Met Lys Glu Leu Ser Gln Asp Ser Thr Gly Arg Val Lys Arg Leu						
	130			135		140
Pro Pro Ile Val Arg Gly Gly Ala Ile Asp Arg Tyr Trp Pro Thr Ala						
	145			150		155
Asp Gly Arg Leu Val Glu Tyr Asp Ile Asp Glu Val Val Tyr Asp Glu						
	165			170		175
Asp Ser Pro Tyr Gln Asn Ile Lys Ile Leu His Ser Lys Gln Phe Gly						
	180			185		190
Asn Ile Leu Ile Leu Ser Gly Asp Val Asn Leu Ala Glu Ser Asp Leu						
	195			200		205
Ala Tyr Thr Arg Ala Ile Met Gly Ser Gly Lys Glu Asp Tyr Thr Gly						
	210			215		220
Lys Asp Val Leu Ile Leu Gly Gly Gly Asp Gly Gly Ile Leu Cys Glu						
	225			230		235
Ile Val Lys Leu Lys Pro Lys Met Val Thr Met Val Glu Ile Asp Gln						
	245			250		255
Met Val Ile Asp Gly Cys Lys Lys Tyr Met Arg Lys Thr Cys Gly Asp						
	260			265		270
Val Leu Asp Asn Leu Lys Gly Asp Cys Tyr Gln Val Leu Ile Glu Asp						
	275			280		285
Cys Ile Pro Val Leu Lys Arg Tyr Ala Lys Glu Gly Arg Glu Phe Asp						
	290			295		300
Tyr Val Ile Asn Asp Leu Thr Ala Val Pro Ile Ser Thr Ser Pro Glu						
	305			310		315
Glu Asp Ser Thr Trp Glu Phe Leu Arg Leu Ile Leu Asp Leu Ser Met						
	325			330		335
Lys Val Leu Lys Gln Asp Gly Lys Tyr Phe Thr Gln Gly Asn Cys Val						

340										345										350																			
Asn	Leu	Thr	Glu	Ala	Leu	Ser	Leu	Tyr	Glu	Glu	Gln	Leu	Gly	Arg	Leu																								
355										360										365																			
Tyr	Cys	Pro	Val	Glu	Phe	Ser	Lys	Glu	Ile	Val	Cys	Val	Pro	Ser	Tyr																								
370										375										380																			
Leu	Glu	Leu	Trp	Val	Phe	Tyr	Thr	Val	Trp	Lys	Lys	Ala	Lys	Pro																									
385										390										395																			
<210> 1386																																							
<211> 287																																							
<212> PRT																																							
<213> Homo sapiens																																							
<400> 1386																																							
Phe	Asp	Cys	Arg	Asp	Val	Ala	Phe	Thr	Val	Gly	Glu	Gly	Glu	Asp	His																								
1										5										10										15									
Asp	Ile	Pro	Ile	Gly	Ile	Asp	Lys	Ala	Leu	Glu	Lys	Met	Gln	Arg	Glu																								
20										25										30																			
Glu	Gln	Cys	Ile	Leu	Tyr	Leu	Gly	Pro	Arg	Tyr	Gly	Phe	Gly	Glu	Ala																								
35										40										45																			
Gly	Lys	Pro	Lys	Phe	Gly	Ile	Glu	Pro	Asn	Ala	Glu	Leu	Ile	Tyr	Glu																								
50										55										60																			
Val	Thr	Leu	Lys	Ser	Phe	Glu	Lys	Ala	Lys	Glu	Ser	Trp	Glu	Met	Asp																								
65										70										75										80									
Thr	Lys	Glu	Lys	Leu	Glu	Gln	Ala	Ala	Ile	Val	Lys	Glu	Lys	Gly	Thr																								
85										90										95																			
Val	Tyr	Phe	Lys	Gly	Gly	Lys	Tyr	Met	Gln	Ala	Val	Ile	Gln	Tyr	Gly																								
100										105										110																			
Lys	Ile	Val	Ser	Trp	Leu	Glu	Met	Glu	Tyr	Gly	Leu	Ser	Glu	Lys	Glu																								
115										120										125																			
Ser	Lys	Ala	Ser	Glu	Ser	Phe	Leu	Leu	Ala	Ala	Phe	Leu	Asn	Leu	Ala																								
130										135										140																			
Met	Cys	Tyr	Leu	Lys	Leu	Arg	Glu	Tyr	Thr	Lys	Ala	Val	Glu	Cys	Cys																								
145										150										155										160									
Asp	Lys	Ala	Leu	Gly	Leu	Asp	Ser	Ala	Asn	Glu	Lys	Gly	Leu	Tyr	Arg																								
165										170										175																			

1449

Arg Gly Glu Ala Gln Leu Leu Met Asn Glu Phe Glu Ser Ala Lys Gly  
 180 185 190  
 Asp Phe Glu Lys Val Leu Glu Val Asn Pro Gln Asn Lys Ala Ala Arg  
 195 200 205  
 Leu Gln Ile Ser Met Cys Gln Lys Lys Ala Lys Glu His Asn Glu Arg  
 210 215 220  
 Asp Arg Arg Tyr Thr Pro Thr Cys Ser Arg Ser Leu Gln Ser Arg Met  
 225 230 235 240  
 Pro Arg Lys Arg Pro Ile Lys Gln Trp Ala Arg Arg Leu Gln Lys Gly  
 245 250 255  
 Ser Leu Met Lys Lys Glu Gln Thr Val Lys Gln Trp Lys Lys Arg Asn  
 260 265 270  
 Leu Arg Ala Thr Tyr Asp Ala Thr Pro Arg Arg Glu Glu Ser Gln  
 275 280 285

&lt;210&gt; 1387

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1387

Arg Leu Pro Ile Arg Gln Ser Ala Ala Asp Gly Leu Arg Ala Arg Pro  
 1 5 10 15  
 Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val Gln Ala Trp  
 20 25 30  
 Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His Arg Pro Asp  
 35 40 45  
 Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu Gly Val Leu  
 50 55 60  
 Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro Glu Leu Glu  
 65 70 75 80  
 Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile Ile Thr Ile  
 85 90 95  
 Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys Met Phe Tyr  
 100 105 110

Glu	Glu	His	Leu	His	Leu	Asp	Asp	Glu	Ile	Arg	Tyr	Ile	Leu	Asp	Gly
		115					120					125			
Ser	Gly	Tyr	Phe	Asp	Val	Arg	Asp	Lys	Glu	Asp	Gln	Trp	Ile	Arg	Ile
		130				135					140				
Phe	Met	Glu	Lys	Gly	Asp	Met	Val	Thr	Leu	Pro	Ala	Gly	Ile	Tyr	His
145					150					155					160
Arg	Phe	Thr	Val	Asp	Glu	Lys	Asn	Tyr	Thr	Lys	Ala	Met	Arg	Leu	Phe
				165					170					175	
Val	Gly	Glu	Pro	Val	Trp	Thr	Ala	Tyr	Asn	Arg	Pro	Ala	Asp	His	Phe
			180					185					190		
Glu	Ala	Arg	Gly	Gln	Tyr	Val	Lys	Phe	Leu	Ala	Gln	Thr	Ala		
		195					200					205			

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<400> 1388
Phe His Xaa Ala Ala His Tyr Ser Leu Pro Asp Gly Arg His Gly Arg
 1              5              10              15

Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His
          20              25              30

Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg
      35              40              45

Glu Gly Asp Thr Val Gln Leu Leu Cys Arg Gly Asp Gly Ser Pro Ser
 50              55              60

Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu
65              70              75              80

Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly
          85              90              95

Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp
100              105              110

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1451

Asp Val Gln Leu Ser Lys Thr Leu Glu Leu Arg Val Ala Tyr Leu Asp  
 115 120 125

Pro Leu Glu Leu Ser Glu Gly Lys Val Leu Ser Leu Pro Leu Asn Ser  
 130 135 140

Ser Ala Val Val Asn Cys Ser Val His Gly Leu Pro Thr Pro Ala Leu  
 145 150 155 160

Arg Trp Thr Lys Asp Ser Thr Pro Leu Gly Asp Gly Pro Met Leu Ser  
 165 170 175

Leu Ser Ser Ile Thr Phe Asp Ser Asn Gly Thr Tyr Val Cys Glu Ala  
 180 185 190

Ser Leu Pro Thr Val Pro Val Leu Ser Arg Thr Gln Asn Phe Thr Leu  
 195 200 205

Leu Val Gln Gly Ser Pro Glu Leu Lys Thr Ala Glu Ile Glu Pro Lys  
 210 215 220

Ala Asp Gly Ser Trp Arg Glu Gly Asp Glu Val Thr Leu Ile Cys Ser  
 225 230 235 240

Ala Arg Gly His Pro Asp Pro Lys Leu Ser Trp Ser Gln Leu Gly Gly  
 245 250 255

Ser Pro Ala Glu Pro Ile Pro Gly Arg Gln Gly Trp Val Ser Ser Ser  
 260 265 270

Leu Thr Leu Lys Val Thr Ser Ala Leu Ser Arg Asp Gly Ile Ser Cys  
 275 280 285

Glu Ala Ser Asn Pro His Gly Asn Lys Arg His Val Phe His Phe Gly  
 290 295 300

Thr Val Ser Pro Gln Thr Ser Gln Ala Gly Val Ala Val Met Ala Val  
 305 310 315 320

Ala Val Ser Val Gly Leu Leu Leu Leu Val Val Ala Val Phe Tyr Cys  
 325 330 335

Val Arg Arg Lys Gly Gly Pro Cys Cys Arg Gln Arg Arg Glu Lys Gly  
 340 345 350

Ala Pro Pro Pro Gly Glu Pro Gly Leu Ser His Ser Gly Ser Glu Gln  
 355 360 365

Pro Glu Gln Thr Gly Leu Leu Met Gly Gly Ala Ser Gly Gly Ala Arg  
 370 375 380

1452

Gly Gly Ser Gly Gly Phe Gly Asp Glu Cys  
 385 390

&lt;210&gt; 1389

&lt;211&gt; 264

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1389

Val Gly Cys Arg Trp Ser Arg Val Gly Pro Gln Asn Pro Arg Val Xaa  
 1 5 10 15

Leu Pro Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr Asp  
 20 25 30

Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val Glu  
 35 40 45

Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile Gln  
 50 55 60

Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser Pro  
 65 70 75 80

Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His  
 85 90 95

Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile  
 100 105 110

Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu  
 115 120 125

Thr Met Thr Val Glu Ser Val Thr Gln Ala Val Ser Asn Leu Ala Leu  
 130 135 140

Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro Phe  
 145 150 155 160

Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln Leu  
 165 170 175

Phe His Met Asp Pro Ser Gly Thr Phe Val Gln Cys Asp Ala Arg Ala



1453

180                      185                      190  
 Ile Gly Ser Ala Ser Glu Gly Ala Gln Ser Ser Leu Gln Glu Val Tyr  
     195                      200                      205  
 His Lys Ser Met Thr Leu Lys Glu Ala Ile Lys Ser Ser Leu Ile Ile  
     210                      215                      220  
 Leu Lys Gln Val Met Glu Glu Lys Leu Asn Ala Thr Asn Ile Glu Leu  
     225                      230                      235                      240  
 Ala Thr Val Gln Pro Gly Gln Asn Phe His Met Phe Thr Lys Glu Glu  
                     245                      250                      255  
 Leu Glu Glu Val Ile Lys Asp Ile  
                     260  
  
 <210> 1390  
 <211> 178  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 1390  
 Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr Ser Gly  
     1                      5                      10                      15  
 Ser Pro Gly Leu Phe Gly Leu Ser Ala Arg Arg Leu Leu Ala Ala Ala  
                     20                      25                      30  
 Ala Thr Arg Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe  
                     35                      40                      45  
 Ser Arg Thr Val Val Ala Pro Ser Ala Val Ala Gly Lys Arg Pro Pro  
                     50                      55                      60  
 Glu Pro Thr Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn  
     65                      70                      75                      80  
 Leu Tyr Glu Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val  
                     85                      90                      95  
 Leu Asp Val Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile  
                     100                      105                      110  
 Ile Leu Val Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg  
                     115                      120                      125  
 Cys Thr Gly Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg  
                     130                      135                      140

1454

Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro  
 145 150 155 160

Ile Met Glu Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu  
 165 170 175

Asp Glu

<210> 1391

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1391

Val Ile Ile Thr Ser Ile Asn Gln Lys Ile Phe His Pro Leu Arg Ala  
 1 5 10 15

Leu Lys Leu Ser Thr Ser Ala Thr Phe Leu Ile Leu Val Leu Gly Gly  
 20 25 30

His Val Tyr Gly Leu Phe Asn Phe His Val Pro Tyr Cys Pro Leu Pro  
 35 40 45

Ala Val Ala Lys Ala Ser Cys Phe Ser Pro Thr Glu Glu Thr Val Leu  
 50 55 60

Cys His Asp Asp Arg Ala Leu Leu Gly Leu Val Phe Leu Val Phe Pro  
 65 70 75 80

Phe Trp Gln Cys Gly Leu Gln Glu Leu Asp Val Tyr Ala Gln Gly Ile  
 85 90 95

Glu Phe Thr Leu Lys Leu Gly Asn Gly Val Phe Asn Leu Cys Ser Cys  
 100 105 110

Leu Phe Ile Leu Leu Phe Ile Phe Cys His Pro Ala Leu Tyr Trp Ala  
 115 120 125

Asn Asn Glu Ile Lys  
 130

<210> 1392

<211> 401

<212> PRT

<213> Homo sapiens

1455

&lt;400&gt; 1392

Asn	Thr	Val	Leu	Lys	Lys	Met	Asp	Glu	Glu	Pro	Glu	Arg	Thr	Lys	Arg
1				5				10						15	
Trp	Glu	Gly	Gly	Tyr	Glu	Arg	Thr	Trp	Glu	Ile	Leu	Lys	Glu	Asp	Glu
		20						25					30		
Ser	Gly	Ser	Leu	Lys	Ala	Thr	Ile	Glu	Asp	Ile	Leu	Phe	Lys	Ala	Lys
	35						40					45			
Arg	Lys	Arg	Val	Phe	Glu	His	His	Gly	Gln	Val	Arg	Leu	Gly	Met	Met
	50					55					60				
Arg	His	Leu	Tyr	Val	Val	Val	Asp	Gly	Ser	Arg	Thr	Met	Glu	Asp	Gln
	65				70					75				80	
Asp	Leu	Lys	Pro	Asn	Arg	Leu	Thr	Cys	Thr	Leu	Lys	Leu	Leu	Glu	Tyr
			85					90						95	
Phe	Val	Glu	Glu	Tyr	Phe	Asp	Gln	Asn	Pro	Ile	Ser	Gln	Ile	Gly	Ile
		100					105						110		
Ile	Val	Thr	Lys	Ser	Lys	Arg	Ala	Glu	Lys	Leu	Thr	Glu	Leu	Ser	Gly
	115						120					125			
Asn	Pro	Arg	Lys	His	Ile	Thr	Ser	Leu	Lys	Lys	Ala	Val	Asp	Met	Thr
	130					135					140				
Cys	His	Gly	Glu	Pro	Ser	Leu	Tyr	Asn	Ser	Leu	Ser	Ile	Ala	Met	Gln
145					150					155				160	
Thr	Leu	Lys	His	Met	Pro	Gly	His	Thr	Ser	Arg	Glu	Val	Leu	Ile	Ile
			165					170					175		
Phe	Ser	Ser	Leu	Thr	Thr	Cys	Asp	Pro	Ser	Asn	Ile	Tyr	Asp	Leu	Ile
			180				185						190		
Lys	Thr	Leu	Lys	Ala	Ala	Lys	Ile	Arg	Val	Ser	Val	Ile	Gly	Leu	Ser
	195						200					205			
Ala	Glu	Val	Arg	Val	Cys	Thr	Val	Leu	Ala	Arg	Glu	Thr	Gly	Gly	Thr
	210					215					220				
Tyr	His	Val	Ile	Leu	Asp	Glu	Ser	His	Tyr	Lys	Glu	Leu	Leu	Thr	His
225					230				235					240	
His	Val	Ser	Pro	Pro	Pro	Ala	Ser	Ser	Ser	Ser	Glu	Cys	Ser	Leu	Ile
			245					250					255		
Arg	Met	Gly	Phe	Pro	Gln	His	Thr	Ile	Ala	Ser	Leu	Ser	Asp	Gln	Asp

1456

260	265	270
Ala Lys Pro Ser Phe Ser Met	Ala His Leu Asp Gly Asn Thr Glu Pro	
275	280	285
Gly Leu Thr Leu Gly Gly Tyr Phe Cys Pro Gln Cys Arg Ala Lys Tyr		
290	295	300
Cys Glu Leu Pro Val Glu Cys Lys Ile Cys Gly Leu Thr Leu Val Ser		
305	310	315
Ala Pro His Leu Ala Arg Ser Tyr His His Leu Phe Pro Leu Asp Ala		
325	330	335
Phe Gln Glu Ile Pro Leu Glu Glu Tyr Asn Gly Glu Arg Phe Cys Tyr		
340	345	350
Gly Cys Gln Gly Glu Leu Lys Asp Gln His Val Tyr Val Cys Ala Val		
355	360	365
Cys Gln Asn Val Phe Cys Val Asp Cys Asp Val Phe Val His Asp Ser		
370	375	380
Leu His Cys Cys Pro Gly Cys Ile His Lys Ile Pro Ala Pro Ser Gly		
385	390	395
		400
Val		

&lt;210&gt; 1393

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1393

Pro Glu Gly Leu Pro Arg Phe Asn Asn Asn Phe Met Ala Pro Gly Ser		
1	5	10
Ala Ser Ser Pro Ser Pro Ser Phe Pro Ala Ser Arg Pro Trp Ala Ala		
20	25	30
Val Gly Thr Met Ala Ala Ala Ala Ala Ala Gly Pro Ser Pro Gly Ser		
35	40	45
Gly Pro Gly Asp Ser Pro Glu Gly Pro Glu Gly Glu Ala Pro Glu Arg		
50	55	60
Arg Arg Lys Ala His Gly Met Leu Lys Leu Tyr Tyr Gly Leu Ser Glu		
65	70	75
		80

1457

Gly Glu Ala Ala Gly Arg Pro Ala Gly Pro Asp Pro Leu Asp Pro Thr  
                     85                    90                    95  
 Asp Leu Asn Gly Ala His Phe Asp Pro Glu Val Tyr Leu Asp Lys Leu  
                     100                    105                    110  
 Arg Arg Glu Cys Pro Leu Ala Gln Leu Met Asp Ser Glu Thr Asp Met  
                     115                    120                    125  
 Val Arg Gln Ile Arg Ala Leu Asp Ser Asp Met Gln Thr Leu Val Tyr  
                     130                    135                    140  
 Glu Asn Tyr Asn Lys Phe Ile Ser Ala Thr Asp Thr Ile Arg Lys Met  
                     145                    150                    155                    160  
 Lys Asn Asp Phe Arg Lys Met Glu Asp Glu Met Asp Arg Leu Ala Thr  
                     165                    170                    175  
 Asn Met Ala Val Ile Thr Asp Phe Ser Ala Arg Ile Ser Ala Thr Leu  
                     180                    185                    190  
 Gln Asp Arg His Glu Arg Ile Thr Lys Leu Ala Gly Val His Ala Leu  
                     195                    200                    205  
 Leu Arg Lys Leu Gln Phe Leu Phe Glu Leu Pro Ser Arg Leu Thr Lys  
                     210                    215                    220  
 Cys Val Glu Leu Gly Ala Tyr Gly Gln Ala Val Arg Tyr Gln Gly Arg  
                     225                    230                    235                    240  
 Ala Gln Ala Val Leu Gln Gln Tyr Gln His Leu Pro Ser Phe Arg Ala  
                     245                    250                    255  
 Ile Gln Asp Asp Cys Gln Val Ile Thr Ala Arg Leu Ala Gln Gln Leu  
                     260                    265                    270  
 Arg Gln Arg Phe Arg Glu Gly Gly Ser Gly Ala Pro Glu Gln Ala Glu  
                     275                    280                    285  
 Cys Val Glu Leu Leu Leu Ala Leu Gly Glu Pro Ala Glu Glu Leu Cys  
                     290                    295                    300  
 Glu Glu Phe Trp Arg Thr Pro Ala Ala Gly Trp Arg Arg Ser  
                     305                    310                    315

&lt;210&gt; 1394

&lt;211&gt; 1285

&lt;212&gt; PRT

1458

&lt;213&gt; Homo sapiens

&lt;400&gt; 1394

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Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln Gly Ser Tyr Lys Val
 1             5             10             15

Val Val Gln Lys Lys Ser Gly Gly Arg Thr Glu His Pro Phe Thr Val
          20             25             30

Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln Val Thr Val Pro Lys
          35             40             45

Ile Ile Thr Ile Leu Glu Glu Glu Met Asn Val Ser Val Cys Gly Leu
          50             55             60

Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val Thr Val Ser Ile Cys
          65             70             75             80

Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly Glu Asp Ser Gln Ala
          85             90             95

Phe Cys Glu Lys Phe Ser Gly Gln Leu Asn Ser His Gly Cys Phe Tyr
          100             105             110

Gln Gln Val Lys Thr Lys Val Phe Gln Leu Lys Arg Lys Glu Tyr Glu
          115             120             125

Met Lys Leu His Thr Glu Ala Gln Ile Gln Glu Glu Gly Thr Val Val
          130             135             140

Glu Leu Thr Gly Arg Gln Ser Ser Glu Ile Thr Arg Thr Ile Thr Lys
          145             150             155             160

Leu Ser Phe Val Lys Val Asp Ser His Phe Arg Gln Gly Ile Pro Phe
          165             170             175

Phe Gly Gln Val Arg Leu Val Asp Gly Lys Gly Val Pro Ile Pro Asn
          180             185             190

Lys Val Ile Phe Ile Arg Gly Asn Glu Ala Asn Tyr Tyr Ser Asn Ala
          195             200             205

Thr Thr Asp Glu His Gly Leu Val Gln Phe Ser Ile Asn Thr Thr Asn
          210             215             220

Val Met Gly Thr Ser Leu Thr Val Arg Val Asn Tyr Lys Asp Arg Ser
          225             230             235             240

Pro Cys Tyr Gly Tyr Gln Trp Val Ser Glu Glu His Glu Glu Ala His
          245             250             255

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1459

His Thr Ala Tyr Leu Val Phe Ser Pro Ser Lys Ser Phe Val His Leu  
 260 265 270  
 Glu Pro Met Ser His Glu Leu Pro Cys Gly His Thr Gln Thr Val Gln  
 275 280 285  
 Ala His Tyr Ile Leu Asn Gly Gly Thr Leu Leu Gly Leu Lys Lys Leu  
 290 295 300  
 Ser Phe Tyr Tyr Leu Ile Met Ala Lys Gly Gly Ile Val Arg Thr Gly  
 305 310 315 320  
 Thr His Gly Leu Leu Val Lys Gln Glu Asp Met Lys Gly His Phe Ser  
 325 330 335  
 Ile Ser Ile Pro Val Lys Ser Asp Ile Ala Pro Val Ala Arg Leu Leu  
 340 345 350  
 Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp Ser Ala Lys  
 355 360 365  
 Tyr Asp Val Glu Asn Cys Leu Ala Asn Lys Val Asp Leu Ser Phe Ser  
 370 375 380  
 Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg Val Thr Ala  
 385 390 395 400  
 Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln Ser Val Leu  
 405 410 415  
 Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val Tyr Asn Leu  
 420 425 430  
 Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu Asn Asp Gln  
 435 440 445  
 Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile Asn Gly Ile  
 450 455 460  
 Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met Tyr Ser Phe  
 465 470 475 480  
 Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys Ile Arg Lys  
 485 490 495  
 Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu Met His Gly Pro Glu  
 500 505 510  
 Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val Met Gly Arg Gly His  
 515 520 525

1460

Ala Arg Leu Val His Val Glu Glu Pro His Thr Glu Thr Val Arg Lys  
 530 535 540  
 Tyr Phe Pro Glu Thr Trp Ile Trp Asp Leu Val Val Val Asn Ser Ala  
 545 550 555 560  
 Gly Val Ala Glu Val Gly Val Thr Val Pro Asp Thr Ile Thr Glu Trp  
 565 570 575  
 Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu Gly Ile Ser  
 580 585 590  
 Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe Phe Val Glu Leu Thr  
 595 600 605  
 Met Pro Tyr Ser Val Ile Arg Gly Glu Ala Phe Thr Leu Lys Ala Thr  
 610 615 620  
 Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val Ser Val Gln Leu Glu  
 625 630 635 640  
 Ala Ser Pro Ala Phe Leu Ala Val Pro Val Glu Lys Glu Gln Ala Pro  
 645 650 655  
 His Cys Ile Cys Ala Asn Gly Arg Gln Thr Val Ser Trp Ala Val Thr  
 660 665 670  
 Pro Lys Ser Leu Gly Asn Val Asn Phe Thr Val Ser Ala Glu Ala Leu  
 675 680 685  
 Glu Ser Gln Glu Leu Cys Gly Thr Glu Val Pro Ser Val Pro Glu His  
 690 695 700  
 Gly Arg Lys Asp Thr Val Ile Lys Pro Leu Leu Val Glu Pro Glu Gly  
 705 710 715 720  
 Leu Glu Lys Glu Thr Thr Phe Asn Ser Leu Leu Cys Pro Ser Gly Gly  
 725 730 735  
 Glu Val Ser Glu Glu Leu Ser Leu Lys Leu Pro Pro Asn Val Val Glu  
 740 745 750  
 Glu Ser Ala Arg Ala Ser Val Ser Val Leu Gly Asp Ile Leu Gly Ser  
 755 760 765  
 Ala Met Gln Asn Thr Gln Asn Leu Leu Gln Met Pro Tyr Gly Cys Gly  
 770 775 780  
 Glu Gln Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val Leu Asp Tyr  
 785 790 795 800



1461

Leu Asn Glu Thr Gln Gln Leu Thr Pro Glu Ile Lys Ser Lys Ala Ile  
                     805                    810                    815

Gly Tyr Leu Asn Thr Gly Tyr Gln Arg Gln Leu Asn Tyr Lys His Tyr  
                     820                    825                    830

Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg Asn Gln Gly  
                     835                    840                    845

Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala Gln Ala Arg  
                     850                    855                    860

Ala Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ala Leu Ile Trp  
 865                    870                    875                    880

Leu Ser Gln Arg Gln Lys Asp Asn Gly Cys Phe Arg Ser Ser Gly Ser  
                     885                    890                    895

Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu Val Thr Leu  
                     900                    905                    910

Ser Ala Tyr Ile Thr Ile Ala Leu Leu Glu Ile Pro Leu Thr Val Thr  
                     915                    920                    925

His Pro Val Val Arg Asn Ala Leu Phe Cys Leu Glu Ser Ala Trp Lys  
                     930                    935                    940

Thr Ala Gln Glu Gly Asp His Gly Ser His Val Tyr Thr Lys Ala Leu  
 945                    950                    955                    960

Leu Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln Asp Lys Arg Lys Glu  
                     965                    970                    975

Val Leu Lys Ser Leu Asn Glu Glu Ala Val Lys Lys Asp Asn Ser Val  
                     980                    985                    990

His Trp Glu Arg Pro Gln Lys Pro Lys Ala Pro Val Gly His Phe Tyr  
                     995                    1000                    1005

Glu Pro Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser Tyr Val Leu  
                     1010                    1015                    1020

Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Glu Asp Leu Thr  
 1025                    1030                    1035                    1040

Ser Ala Thr Asn Ile Val Lys Trp Ile Thr Lys Gln Gln Asn Ala Gln  
                     1045                    1050                    1055

Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu His Ala Leu  
                     1060                    1065                    1070

1462

Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln  
 1075 1080 1085  
 Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp  
 1090 1095 1100  
 Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro  
 105 1110 1115 1120  
 Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln  
 1125 1130 1135  
 Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe  
 1140 1145 1150  
 Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala  
 1155 1160 1165  
 His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg  
 1170 1175 1180  
 Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe  
 185 1190 1195 1200  
 Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val  
 1205 1210 1215  
 Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys  
 1220 1225 1230  
 Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val  
 1235 1240 1245  
 Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr  
 1250 1255 1260  
 Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys  
 265 1270 1275 1280  
 Asp Leu Gly Asn Ala  
 1285

&lt;210&gt; 1395

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1395

Ile Thr Lys Asn Ile Tyr Ser Asp Leu Lys Asp Leu Ser Ala Lys Asn

1463

1                    5                    10                    15  
 Gln Ser Ile Ser Cys Pro Ser Ile Ile Val His Ala Cys Leu Leu Leu  
                   20                    25                    30  
 Phe Thr Cys Ser Ser Ala Gln Thr Val Ser Asn Leu Gly Thr Pro Phe  
                   35                    40                    45  
 Gly Ala Asp Lys Tyr Ser Ser Ala Phe Ser Pro Gln Ile Tyr Asn Asp  
                   50                    55                    60  
 Phe Asn Ile Pro Lys Asn Ile Gly Ile Ser Glu  
                   65                    70                    75

&lt;210&gt; 1396

&lt;211&gt; 920

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1396

Arg Thr Arg Gly Ile His Gly Glu Met Arg Leu Phe Val Ser Asp Gly  
                   1                    5                    10                    15  
 Val Pro Gly Cys Leu Pro Val Leu Ala Ala Ala Gly Arg Ala Arg Gly  
                   20                    25                    30  
 Arg Ala Glu Val Leu Ile Ser Thr Val Gly Pro Glu Asp Cys Val Val  
                   35                    40                    45  
 Pro Phe Leu Thr Arg Pro Lys Val Pro Val Leu Gln Leu Asp Ser Gly  
                   50                    55                    60  
 Asn Tyr Leu Phe Ser Thr Ser Ala Ile Cys Arg Tyr Phe Phe Leu Leu  
                   65                    70                    75                    80  
 Ser Gly Trp Glu Gln Asp Asp Leu Thr Asn Gln Trp Leu Glu Trp Glu  
                   85                    90                    95  
 Ala Thr Glu Leu Gln Pro Ala Leu Ser Ala Ala Leu Tyr Tyr Leu Val  
                   100                    105                    110  
 Val Gln Gly Lys Lys Gly Glu Asp Val Leu Gly Ser Val Arg Arg Ala  
                   115                    120                    125  
 Leu Thr His Ile Asp His Ser Leu Ser Arg Gln Asn Cys Pro Phe Leu  
                   130                    135                    140  
 Ala Gly Glu Thr Glu Ser Leu Ala Asp Ile Val Leu Trp Gly Ala Leu  
                   145                    150                    155                    160

1464

Tyr Pro Leu Leu Gln Asp Pro Ala Tyr Leu Pro Glu Glu Leu Ser Ala  
 165 170 175  
 Leu His Ser Trp Phe Gln Thr Leu Ser Thr Gln Glu Pro Cys Gln Arg  
 180 185 190  
 Ala Ala Glu Thr Val Leu Lys Gln Gln Gly Val Leu Ala Leu Arg Pro  
 195 200 205  
 Tyr Leu Gln Lys Gln Pro Gln Pro Ser Pro Ala Glu Gly Arg Ala Val  
 210 215 220  
 Thr Asn Glu Pro Glu Glu Glu Glu Leu Ala Thr Leu Ser Glu Glu Glu  
 225 230 235 240  
 Ile Ala Met Ala Val Thr Ala Trp Glu Lys Gly Leu Glu Ser Leu Pro  
 245 250 255  
 Pro Leu Arg Pro Gln Gln Asn Pro Val Leu Pro Val Ala Gly Glu Arg  
 260 265 270  
 Asn Val Leu Ile Thr Ser Ala Leu Pro Tyr Val Asn Asn Val Pro His  
 275 280 285  
 Leu Gly Asn Ile Ile Gly Cys Val Leu Ser Ala Asp Val Phe Ala Arg  
 290 295 300  
 Tyr Ser Arg Leu Arg Gln Trp Asn Thr Leu Tyr Leu Cys Gly Thr Asp  
 305 310 315 320  
 Glu Tyr Gly Thr Ala Thr Glu Thr Lys Ala Leu Glu Glu Gly Leu Thr  
 325 330 335  
 Pro Gln Glu Ile Cys Asp Lys Tyr His Ile Ile His Ala Asp Ile Tyr  
 340 345 350  
 Arg Trp Phe Asn Ile Ser Phe Asp Ile Phe Gly Arg Thr Thr Thr Pro  
 355 360 365  
 Gln Gln Thr Lys Ile Thr Gln Asp Ile Phe Gln Gln Leu Leu Lys Arg  
 370 375 380  
 Gly Phe Val Leu Gln Asp Thr Val Glu Gln Leu Arg Cys Glu His Cys  
 385 390 395 400  
 Ala Arg Phe Leu Ala Asp Arg Phe Val Glu Gly Val Cys Pro Phe Cys  
 405 410 415  
 Gly Tyr Glu Glu Ala Arg Gly Asp Gln Cys Asp Lys Cys Gly Lys Leu  
 420 425 430

1465

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Ile Asn Ala Val Glu Leu Lys Lys Pro Gln Cys Lys Val Cys Arg Ser
    435                      440                      445

Cys Pro Val Val Gln Ser Ser Gln His Leu Phe Leu Asp Leu Pro Lys
    450                      455                      460

Leu Glu Lys Arg Leu Glu Glu Trp Leu Gly Arg Thr Leu Pro Gly Ser
    465                      470                      475                      480

Asp Trp Thr Pro Asn Ala Gln Phe Ile Thr Arg Ser Trp Leu Arg Asp
    485                      490                      495

Gly Leu Lys Pro Arg Cys Ile Thr Arg Asp Leu Lys Trp Gly Thr Pro
    500                      505                      510

Val Pro Leu Glu Gly Phe Glu Asp Lys Val Phe Tyr Val Trp Phe Asp
    515                      520                      525

Ala Thr Ile Gly Tyr Leu Ser Ile Thr Ala Asn Tyr Thr Asp Gln Trp
    530                      535                      540

Glu Arg Trp Trp Lys Asn Pro Glu Gln Val Asp Leu Tyr Gln Phe Met
    545                      550                      555                      560

Ala Lys Asp Asn Val Pro Phe His Ser Leu Val Phe Pro Cys Ser Ala
    565                      570                      575

Leu Gly Ala Glu Asp Asn Tyr Thr Leu Val Ser His Leu Ile Ala Thr
    580                      585                      590

Glu Tyr Leu Asn Tyr Glu Asp Gly Lys Phe Ser Lys Ser Arg Gly Val
    595                      600                      605

Gly Val Phe Gly Asp Met Ala Gln Asp Thr Gly Ile Pro Ala Asp Ile
    610                      615                      620

Trp Arg Phe Tyr Leu Leu Tyr Ile Arg Pro Glu Gly Gln Asp Ser Ala
    625                      630                      635                      640

Phe Ser Trp Thr Asp Leu Leu Leu Lys Asn Asn Ser Glu Leu Leu Asn
    645                      650                      655

Asn Leu Gly Asn Phe Ile Asn Arg Ala Gly Met Phe Val Ser Lys Phe
    660                      665                      670

Phe Gly Gly Tyr Val Pro Glu Met Val Leu Thr Pro Asp Asp Gln Arg
    675                      680                      685

Leu Leu Ala His Val Thr Leu Glu Leu Gln His Tyr His Gln Leu Leu
    690                      695                      700

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1466

Glu Lys Val Arg Ile Arg Asp Ala Leu Arg Ser Ile Leu Thr Ile Ser  
705 710 715 720

Arg His Gly Asn Gln Tyr Ile Gln Val Asn Glu Pro Trp Lys Arg Ile  
725 730 735

Lys Gly Ser Glu Ala Asp Arg Gln Arg Ala Gly Thr Val Thr Gly Leu  
740 745 750

Ala Val Asn Ile Ala Ala Leu Leu Ser Val Met Leu Gln Pro Tyr Met  
755 760 765

Pro Thr Val Ser Ala Thr Ile Gln Ala Gln Leu Gln Leu Pro Pro Pro  
770 775 780

Ala Cys Ser Ile Leu Leu Thr Asn Phe Leu Cys Thr Leu Pro Ala Gly  
785 790 795 800

His Gln Ile Gly Thr Val Ser Pro Leu Phe Gln Lys Leu Glu Asn Asp  
805 810 815

Gln Ile Glu Ser Leu Arg Gln Arg Phe Gly Gly Gly Gln Ala Lys Thr  
820 825 830

Ser Pro Lys Pro Ala Val Val Glu Thr Val Thr Thr Ala Lys Pro Gln  
835 840 845

Gln Ile Gln Ala Leu Met Asp Glu Val Thr Lys Gln Gly Asn Ile Val  
850 855 860

Arg Glu Leu Lys Ala Gln Lys Ala Asp Lys Asn Glu Val Ala Ala Glu  
865 870 875 880

Val Ala Lys Leu Leu Asp Leu Lys Lys Gln Leu Ala Val Ala Glu Gly  
885 890 895

Asn Pro Leu Lys Pro Leu Lys Ala Arg Arg Lys Ser Lys Arg Pro Trp  
900 905 910

Leu Ile Glu Ser His Phe Asn Arg  
915 920

&lt;210&gt; 1397

&lt;211&gt; 476

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1467

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1397

Lys Met Ala Ala Leu Thr Thr Leu Phe Lys Tyr Ile Asp Glu Asn Gln  
 1 5 10 15

Asp Arg Tyr Ile Lys Lys Leu Ala Lys Trp Val Ala Ile Gln Ser Val  
 20 25 30

Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile Arg Arg Met Met Glu Val  
 35 40 45

Ala Ala Ala Asp Val Lys Gln Leu Gly Gly Ser Val Glu Leu Val Asp  
 50 55 60

Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser Glu Ile Pro Leu Pro Pro  
 65 70 75 80

Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro Gln Lys Lys Thr Val Cys  
 85 90 95

Ile Tyr Gly His Leu Asp Val Gln Pro Ala Ala Leu Glu Asp Gly Trp  
 100 105 110

Asp Ser Glu Pro Phe Thr Leu Val Glu Arg Asp Gly Lys Leu Xaa Gly  
 115 120 125

Arg Gly Ser Thr Asp Asp Lys Gly Pro Val Ala Gly Trp Ile Asn Ala  
 130 135 140

Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu Ile Pro Val Asn Val Arg  
 145 150 155 160

Phe Cys Leu Glu Gly Met Glu Glu Ser Gly Ser Glu Gly Leu Asp Glu  
 165 170 175

Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe Lys Asp Val Asp Tyr Val  
 180 185 190

Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys Lys Lys Pro Cys Ile Thr  
 195 200 205

Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe Ile Glu Val Glu Cys Ser  
 210 215 220

Asn Lys Asp Leu His Ser Gly Val Tyr Gly Gly Ser Val His Glu Ala  
 225 230 235 240

Met Thr Asp Leu Ile Leu Leu Met Gly Ser Leu Val Asp Lys Arg Gly

1468

245	250	255
Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala Val Ala Ala Val Thr Glu 260	265	270
Glu Glu His Lys Leu Tyr Asp Asp Ile Asp Phe Asp Ile Glu Glu Phe 275	280	285
Ala Lys Asp Val Gly Ala Gln Ile Leu Leu His Ser His Lys Lys Asp 290	295	300
Ile Leu Met His Arg Trp Arg Tyr Pro Ser Leu Ser Leu His Gly Ile 305	310	315
Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys Thr Val Ile Pro Arg Lys 325	330	335
Val Val Gly Lys Phe Ser Ile Arg Leu Val Pro Asn Met Thr Pro Glu 340	345	350
Val Val Gly Glu Gln Val Thr Ser Tyr Leu Thr Lys Lys Phe Ala Glu 355	360	365
Leu Arg Ser Pro Asn Glu Phe Lys Val Tyr Met Gly His Gly Gly Lys 370	375	380
Pro Trp Val Ser Asp Phe Ser His Pro His Tyr Leu Ala Gly Arg Arg 385	390	395
Ala Met Lys Thr Val Phe Gly Val Glu Pro Asp Leu Thr Arg Glu Gly 405	410	415
Gly Ser Ile Pro Val Thr Leu Thr Phe Gln Glu Ala Thr Gly Lys Asn 420	425	430
Val Met Leu Leu Pro Val Gly Ser Ala Asp Asp Gly Ala His Ser Gln 435	440	445
Asn Glu Lys Leu Asn Arg Tyr Asn Tyr Ile Glu Gly Thr Lys Met Leu 450	455	460
Ala Ala Tyr Leu Tyr Glu Val Ser Gln Leu Lys Asp 465	470	475

&lt;210&gt; 1398

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



1469

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1398

Leu His Leu Xaa Pro Thr Ser Ile Ser Ser Ser Ser Ser Cys Ser Val  
 1 5 10 15  
 Ser Ser Val Val Ser Gln Arg Leu Thr Glu Ser Pro Cys Ala Leu Val  
 20 25 30  
 Ala Ser Gln Tyr Gly Trp Ser Gly Asn Met Glu Arg Ile Met Lys Ala  
 35 40 45  
 Gln Ala Tyr Gln Thr Gly Lys Asp Ile Ser Thr Asn Tyr Tyr Ala Ser  
 50 55 60  
 Gln Lys Lys Thr Phe Glu Ile Asn Pro Arg His Pro Leu Ile Arg Asp  
 65 70 75 80  
 Met Leu Arg Arg Ile Lys Glu Asp Glu Asp Asp Lys Thr Val Leu Asp  
 85 90 95  
 Leu Ala Val Val Leu Phe Glu Thr Ala Thr Leu Arg Ser Gly Tyr Leu  
 100 105 110  
 Leu Pro Asp Thr Lys Ala Tyr Gly Asp Arg Ile Glu Arg Met Leu Arg  
 115 120 125  
 Leu Ser Leu Asn Ile Asp Pro Asp Ala Lys Val Glu Glu Glu Pro Glu  
 130 135 140  
 Glu Glu Pro Glu Glu Thr Ala Glu Asp Thr Thr Glu Asp Thr Glu Gln  
 145 150 155 160  
 Asp Glu Asp Glu Glu Met Asp Val Gly Thr Asp Glu Glu Glu Glu Thr  
 165 170 175  
 Ala Lys Glu Ser Thr Ala Glu Lys Asp Glu Leu  
 180 185

&lt;210&gt; 1399

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1399

Lys Ser Ser Thr Gly Val Ile Pro Asp Glu Ala Lys Ala Leu Ser Leu

1470

1	5	10	15
Leu Ala Pro	Ala Asn Ala Val	Ala Gly Leu Leu Pro	Gly Gly Gly Leu
	20	25	30
Leu Pro Thr	Pro Asn Pro Leu Thr	Gln Ile Gly Ala Val	Pro Leu Ala
	35	40	45
Ala Leu Gly	Ala Pro Thr Leu Asp	Pro Ala Leu Ala Ala	Leu Gly Leu
	50	55	60
Pro Gly Ala	Asn Leu Asn Ser Gln	Ser Leu Ala Ala Asp	Gln Leu Leu
	65	70	75
Lys Leu Met	Ser Thr Val Asp Pro	Lys Leu Asn His Val	Ala Ala Gly
	85	90	95
Leu Val Ser	Pro Ser Leu Lys Ser	Asp Thr Ser Ser Lys	Glu Ile Glu
	100	105	110
Glu Ala Met	Lys Arg Val Arg Glu	Ala Gln Ser Leu Ile	Ser Ala Ala
	115	120	125
Ile Glu Pro	Asp Lys Lys Glu Glu	Lys Arg Arg His Ser	Arg Ser Arg
	130	135	140
Ser Arg Ser	Arg Arg Arg Thr Pro	Ser Ser Ser Arg His	Arg Arg
	145	150	155
Ser Arg Ser	Arg Ser Arg Arg Ser	His Ser Lys Ser Arg	Ser Arg
	165	170	175
Arg Arg Ser	Lys Ser Pro Arg Arg	Arg Arg Ser His Ser	Arg Glu Arg
	180	185	190
Gly Arg Arg	Ser Arg Ser Thr Ser	Lys Thr Arg Asp Lys	Lys Lys Glu
	195	200	205
Asp Lys Glu	Lys Lys Arg Ser Lys	Thr Pro Pro Lys Ser	Tyr Ser Thr
	210	215	220
Ala Arg Arg	Ser Arg Ser Ala Ser	Arg Glu Arg Arg Arg	Arg Ser
	225	230	235
Arg Ser Gly	Thr Arg Ser Pro Lys	Lys Pro Arg Ser Pro	Lys Arg Lys
	245	250	255
Leu Ser Arg	Ser Pro Ser Pro Arg	Arg His Lys Lys Glu	Lys Lys Lys
	260	265	270
Asp Lys Asp	Lys Glu Arg Ser Arg	Asp Glu Arg Glu Arg	Ser Thr Ser

1471

275	280	285
Lys Lys Lys Lys Ser Lys Asp Lys Glu Lys Asp Arg Glu Arg Lys Ser		
290	295	300
Glu Ser Asp Lys Asp Val Lys Gln Val Thr Arg Asp Tyr Asp Glu Glu		
305	310	315 320
Glu Gln Gly Tyr Asp Ser Glu Lys Glu Lys Lys Glu Glu Lys Lys Pro		
	325	330 335
Ile Glu Thr Gly Ser Pro Lys Thr Lys Glu Cys Ser Val Glu Lys Gly		
	340	345 350
Thr Gly Asp Ser Leu Arg Glu Ser Lys Val Asn Gly Asp Asp His His		
	355	360 365
Glu Glu Asp Met Asp Met Ser Asp		
370	375	

&lt;210&gt; 1400

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1400

Thr Ala Gly Leu Thr Ser Arg Gly Trp Gly Ser Leu Pro Pro Ser Leu			
1	5	10	15
Glu Thr Phe Leu Xaa Trp Leu Lys Ser Arg Lys Glu Asn Glu Cys Thr			
	20	25	30
Ser Arg Leu Ala Gln Ser Leu Ser Pro Ser Ser Ser Leu Phe Pro Ala			
	35	40	45
Gly Pro Ser Gly Leu Tyr Gly Pro Asp Gly Gly Leu Arg Lys Met Arg			
50	55	60	
Gly Leu Trp Phe Ser Gly Ile Pro Ala Gly Ala Thr Pro Ser Cys Leu			
65	70	75	80
Gln Met Val His Val Pro Ile Pro Pro Ser Arg Pro Leu Leu Cys Leu			
	85	90	95

1472

Leu Cys His Arg Asp Ser Gln Gln Arg Phe Phe Phe Val Leu Ala Val  
100 105 110

&lt;210&gt; 1401

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1401

Arg Arg Gln Val Gly Ala Ala Ala Val Ala Met Thr Arg Gly Asn Gln  
1 5 10 15

Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val  
20 25 30

Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln  
35 40 45

Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys  
50 55 60

Lys Glu Glu Pro Lys  
65

&lt;210&gt; 1402

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1473

&lt;400&gt; 1402

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Arg Pro Pro Arg Arg Xaa Pro Met Asp Gly Pro Ala Ile Ile Thr Gln
 1             5             10             15

Val Thr Asn Pro Lys Glu Asp Glu Gly Arg Leu Pro Gly Ala Gly Glu
      20             25             30

Lys Ala Ser Gln Cys Asn Val Ser Leu Lys Lys Gln Arg Ser Arg Ser
      35             40             45

Ile Leu Ser Ser Phe Phe Cys Cys Phe Arg Asp Tyr Asn Val Glu Ala
 50             55             60

Pro Pro Pro Ser Ser Pro Ser Val Leu Pro Pro Leu Val Glu Glu Asn
 65             70             75             80

Gly Gly Leu Gln Lys Pro Pro Ala Lys Tyr Leu Leu Pro Glu Val Thr
      85             90             95

Val Leu Asp Tyr Gly Lys Lys Cys Val Val Ile Asp Leu Asp Glu Thr
      100            105            110

Leu Val His Ser Ser Phe Lys Pro Ile Ser Asn Ala Asp Phe Ile Val
      115            120            125

Pro Val Glu Ile Asp Gly Thr Ile His Gln Val Tyr Val Leu Lys Arg
      130            135            140

Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Gln Leu Leu Asn Val
      145            150            155            160

Cys Xaa Leu Leu Pro Xaa Gly Gln Val Cys Arg Pro Val Ala Asp Leu
      165            170            175

Leu

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&lt;210&gt; 1403

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1403

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Lys His Ile Leu Ser Thr Phe Glu Thr Ser Val Leu Glu Gly Arg Leu
 1             5             10             15

His Lys Leu Ser Ser Pro Arg Leu Arg Arg Leu Gln Ser Gly Lys Leu
      20             25             30

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1474

Thr Cys Arg Asn Gly Val Pro Phe Met Leu Tyr Leu Asp Lys Gly Asn  
           35                    40                    45  
 Gln Lys Trp Asn Gln Cys Arg Gln Asn Leu Gly Phe Ala Ala Ser Ile  
           50                    55                    60  
 Asn Gln Ser Met Thr Asn Arg Gly Ser Leu Lys Cys Lys Gly Thr Asn  
           65                    70                    75                    80  
 Phe Thr

<210> 1404  
 <211> 251  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (37)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (41)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1404  
 Thr Thr Lys Pro Ala Thr Thr Pro Ser Ser Thr Thr Arg Thr Cys Arg  
   1                    5                    10                    15  
 Arg Ser Pro Ser Thr Leu Pro Ser Ala Thr Trp Thr Pro Leu Ala Ser  
           20                    25                    30  
 Arg Thr Ala His Xaa Leu Pro Arg Xaa Tyr Met Tyr Pro Ser Met Asp  
           35                    40                    45  
 Gln Leu Ala Glu Met Leu Pro Gly Val Leu Gln Gln Phe Gly Leu Lys  
           50                    55                    60  
 Ser Ile Ile Gly Met Gly Thr Gly Ala Gly Ala Tyr Ile Leu Thr Arg  
           65                    70                    75                    80  
 Phe Ala Leu Asn Asn Pro Glu Met Val Glu Gly Leu Val Leu Ile Asn  
                     85                    90                    95  
 Val Asn Pro Cys Ala Glu Gly Trp Met Asp Trp Ala Ala Ser Lys Ile  
           100                    105                    110

1475

Ser Gly Trp Thr Gln Ala Leu Pro Asp Met Val Val Ser His Leu Phe  
 115 120 125  
 Gly Lys Glu Glu Met Gln Ser Asn Val Glu Val Val His Thr Tyr Arg  
 130 135 140  
 Gln His Ile Val Asn Asp Met Asn Pro Gly Asn Leu His Leu Phe Ile  
 145 150 155 160  
 Asn Ala Tyr Asn Ser Arg Arg Asp Leu Glu Ile Glu Arg Pro Met Pro  
 165 170 175  
 Gly Thr His Thr Val Thr Leu Gln Cys Pro Ala Leu Leu Val Val Gly  
 180 185 190  
 Asp Ser Ser Pro Ala Val Asp Ala Val Val Glu Cys Asn Ser Lys Leu  
 195 200 205  
 Asp Pro Thr Lys Thr Thr Leu Leu Lys Met Ala Asp Cys Gly Gly Leu  
 210 215 220  
 Pro Gln Ile Ser Gln Pro Ala Lys Leu Ala Glu Ala Phe Lys Tyr Phe  
 225 230 235 240  
 Val Gln Gly Met Gly Tyr Met Pro Arg Leu Ala  
 245 250

&lt;210&gt; 1405

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1405

Phe Glu Gly Phe Tyr Ser Gly Arg Lys Asn Arg Thr Lys Val Tyr Val  
 1 5 10 15  
 Pro Ser Ser Val Val Leu Ile Asp Leu Phe Phe Leu Phe Glu Thr Lys  
 20 25 30  
 Val Val Ser Val Phe Trp Phe Ser Gly Asn Met Tyr Tyr Ile Val Leu  
 35 40 45  
 Lys Glu Cys Cys Pro Thr Asn Tyr Ser Ser Lys Gln Arg Ile Val Thr  
 50 55 60  
 Ile Asn Lys Val Ser Val Thr Leu Leu Pro Leu Ser His Asn Ile His  
 65 70 75 80  
 Cys Arg Ala Leu Cys Arg Ser Lys Asn Arg Ala Ala Gln Asn Leu Cys

1476

	85		90		95										
Gly	Ser	Phe	Leu	Ser	Phe	Cys	Asn	Leu	Arg	His	Met	Phe	Gln	Arg	Thr
	100							105					110		
Gly	Ile	Phe	Val	Trp	Ser	Ser	Asp	Leu	Gly	Asp	His	Ser	His	Asn	
	115						120						125		

&lt;210&gt; 1406

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (190)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (192)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (194)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;



1477

&lt;221&gt; SITE

&lt;222&gt; (217)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (218)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1406

Ala	Glu	Arg	Pro	Leu	Gln	Val	Pro	Arg	Ser	Ala	Gly	Glu	Ala	Ala	Pro
1				5					10					15	

His	Ser	Arg	Arg	Pro	Pro	Gly	Leu	Leu	Pro	His	Ala	Pro	Arg	Ala	Ala
			20					25					30		

Ser	Ala	Gln	Leu	Glu	Glu	Arg	Arg	Arg	Asp	Pro	His	Pro	Gly	Met	Thr
		35					40					45			

Leu	Gln	Glu	Gly	Asp	Cys	Arg	Gly	Ser	Gln	Thr	Val	Ser	Leu	Thr	Met
	50					55					60				

Gly	Thr	Ala	Asp	Ser	Asp	Glu	Met	Ala	Pro	Glu	Ala	Pro	Gln	His	Thr
65					70					75				80	

His	Ile	Asp	Val	His	Ile	His	Gln	Glu	Xaa	Ala	Leu	Ala	Lys	Leu	Leu
			85						90					95	

Leu	Thr	Cys	Cys	Ser	Ala	Leu	Arg	Pro	Arg	Ala	Thr	Gln	Ala	Arg	Xaa
			100					105					110		

Ser	Ser	Arg	Leu	Leu	Xaa	Ala	Ser	Trp	Val	Met	Gln	Ile	Val	Leu	Gly
		115					120					125			

Ile	Leu	Ser	Ala	Val	Leu	Gly	Gly	Phe	Phe	Tyr	Ile	Arg	Asp	Tyr	Thr
	130					135					140				

Leu	Leu	Val	Thr	Ser	Gly	Ala	Ala	Ser	Gly	Gln	Gly	Leu	Trp	Leu	Cys
145					150					155				160	

Cys	Trp	Ser	Cys	Cys	Leu	His	Leu	Xaa	Glu	Thr	Gly	Trp	Tyr	Ile	Leu
			165						170					175	

Gly	Pro	Ala	Glu	Asp	Ser	Ala	Asn	Ala	Gly	Lys	Leu	Ser	Xaa	Gln	Xaa
		180						185						190	

Ser	Xaa	Ala	Ser	Asn	Phe	Gly	Asn	Glu	Glu	Phe	Arg	Tyr	Gly	Leu	Leu
		195					200					205			

Leu	Ile	Thr	Thr	Ser	Gly	Trp	Pro	Xaa	Xaa	Gln	Val	Arg	Val	Asp	Trp
	210					215						220			

1478

Asn Thr Ser Ser Pro Gln  
225 230

&lt;210&gt; 1407

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1407

Arg Gly His Phe Leu Leu Pro Asp Leu Asp Ile Pro Ser Asn Pro Ser  
1 5 10 15

Ser Tyr Ser Met Leu Lys Glu Lys Tyr Ser Gln Met His Tyr Val Asn  
20 25 30

Gly Glu Lys Lys His Ser Ile Val Glu Thr Pro Ile Leu Ala Asn Val  
35 40 45

Phe Trp Ser Val Phe His Phe Thr Val Tyr Ile Pro Ala Leu Lys Thr  
50 55 60

Gln Gly Gln Val Leu Thr Lys Glu Val Cys Ser His Ser Lys Tyr  
65 70 75

&lt;210&gt; 1408

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1408

Val Arg Pro Pro Ser His Val Thr Ala Asp Ser Gly Arg Ser Pro Leu  
1 5 10 15

Ser Leu Thr Tyr Leu Pro Leu Gln Glu Pro Gly Asp Met Ala Ala Ala  
20 25 30

Val Pro Arg Ala Ala Phe Leu Ser Pro Leu Leu Pro Leu Leu Leu Gly  
35 40 45

Phe Leu Leu Leu Ser Ala Pro His Gly Gly Ser Gly Leu His Thr Lys  
50 55 60

Gly Ala Leu Pro Leu Asp Thr Val Thr Phe Tyr Lys Val Ile Pro Lys  
65 70 75 80

Ser Lys Phe Val Leu Val Lys Phe Asp Thr Gln Tyr Pro Tyr Gly Glu

1479

[illegible]

<210> 1409

<211> 488

<212> PRT

<213> Homo sapiens

<400> 1409

Pro Ala Ser Ala Gly Thr Val Ser Glu Gly Pro Pro Gly Thr Asp Gly  
1 5 10 15

1480

Ser Ala Gly Arg Gly Gly Thr Ala Phe Ala Met Ala Ala Thr Val Asn  
 20 25 30  
 Leu Glu Leu Asp Pro Ile Phe Leu Lys Ala Leu Gly Phe Leu His Ser  
 35 40 45  
 Lys Ser Lys Asp Ser Ala Glu Lys Leu Lys Ala Leu Leu Asp Glu Ser  
 50 55 60  
 Leu Ala Arg Gly Ile Asp Ser Ser Tyr Arg Pro Ser Gln Lys Asp Val  
 65 70 75 80  
 Glu Pro Pro Lys Ile Ser Ser Thr Lys Asn Ile Ser Ile Lys Gln Glu  
 85 90 95  
 Pro Lys Ile Ser Ser Ser Leu Pro Ser Gly Asn Asn Asn Gly Lys Val  
 100 105 110  
 Leu Thr Thr Glu Lys Val Lys Lys Glu Ala Glu Lys Arg Pro Ala Asp  
 115 120 125  
 Lys Met Lys Ser Asp Ile Thr Glu Gly Val Asp Ile Pro Lys Lys Pro  
 130 135 140  
 Arg Leu Glu Lys Pro Glu Thr Gln Ser Ser Pro Ile Thr Val Gln Ser  
 145 150 155 160  
 Ser Lys Asp Leu Pro Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser  
 165 170 175  
 Ala Asp Asp Phe Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg  
 180 185 190  
 Gln Met Met Val Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys  
 195 200 205  
 His Asn Leu Tyr His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys  
 210 215 220  
 Glu Ala Asn Asp Pro Arg Leu Val Trp Tyr Cys Ala Arg Cys Thr Arg  
 225 230 235 240  
 Gln Met Lys Arg Met Ala Gln Lys Thr Gln Lys Pro Pro Gln Lys Pro  
 245 250 255  
 Ala Pro Ala Val Val Ser Val Thr Pro Ala Val Lys Asp Pro Leu Val  
 260 265 270  
 Lys Lys Pro Glu Thr Lys Leu Lys Gln Glu Thr Thr Phe Leu Ala Phe  
 275 280 285

1481

Lys Arg Thr Glu Val Lys Thr Ser Thr Val Ile Ser Gly Asn Ser Ser  
 290 295 300  
 Ser Ala Ser Val Ser Ser Ser Val Thr Ser Gly Leu Thr Gly Trp Ala  
 305 310 315 320  
 Ala Phe Ala Ala Lys Thr Ser Ser Ala Gly Pro Ser Thr Ala Lys Leu  
 325 330 335  
 Ser Ser Thr Thr Gln Asn Asn Thr Gly Lys Pro Ala Thr Ser Ser Ala  
 340 345 350  
 Asn Gln Lys Pro Val Gly Leu Thr Gly Leu Ala Thr Ser Ser Lys Gly  
 355 360 365  
 Gly Ile Gly Ser Lys Ile Gly Ser Asn Asn Ser Thr Thr Pro Thr Val  
 370 375 380  
 Pro Leu Lys Pro Pro Pro Pro Leu Thr Leu Gly Lys Thr Gly Leu Ser  
 385 390 395 400  
 Arg Ser Val Ser Cys Asp Asn Val Ser Lys Val Gly Leu Pro Ser Pro  
 405 410 415  
 Ser Ser Leu Val Pro Gly Ser Ser Ser Gln Leu Ser Gly Asn Gly Asn  
 420 425 430  
 Ser Gly Thr Ser Gly Pro Ser Gly Ser Thr Thr Ser Lys Thr Thr Ser  
 435 440 445  
 Glu Ser Ser Ser Ser Pro Ser Ala Ser Leu Lys Gly Pro Thr Ser Gln  
 450 455 460  
 Glu Ser Gln Leu Asn Ala Met Lys Arg Leu Gln Met Val Lys Lys Lys  
 465 470 475 480  
 Ala Ala Gln Lys Lys Leu Lys Lys  
 485

&lt;210&gt; 1410

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1482

&lt;400&gt; 1410

His Tyr Gly Leu Lys Leu Ala Val Lys Met Pro Asn Thr Val Val Pro  
 1 5 10 15

Trp Asn Pro Val Tyr Ser Cys Ala Lys Gln Asn Cys Lys Ile Val Lys  
 20 25 30

Met Ser Tyr Gln Val Ile Arg Arg Leu Gln Arg His His Leu Phe Phe  
 35 40 45

Ile Ser Phe Phe Xaa Leu Thr His Val Val Val Ile Phe Asn Thr Phe  
 50 55 60

&lt;210&gt; 1411

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1411

Ala Ala Cys Leu Ala Leu Arg Ile Ala Ala Ala Met Ala Ser Gln Ser  
 1 5 10 15

Gln Gly Ile Gln Gln Leu Leu Gln Ala Glu Lys Arg Ala Ala Glu Lys  
 20 25 30

Val Ser Glu Ala Arg Lys Arg Lys Asn Arg Arg Leu Lys Gln Ala Lys  
 35 40 45

Glu Glu Ala Gln Ala Glu Ile Glu Gln Tyr Arg Leu Gln Arg Glu Lys  
 50 55 60

Glu Phe Lys Ala Lys Glu Ala Ala Ala Leu Gly Ser Arg Gly Ser Cys  
 65 70 75 80

Ser Thr Glu Val Glu Lys Glu Thr Gln Glu Lys Met Thr Ile Leu Gln  
 85 90 95

Thr Tyr Phe Arg Gln Asn Arg Asp Glu Val Leu Asp Asn Leu Leu Ala  
 100 105 110

Phe Val Cys Asp Ile Arg Pro Glu Ile His Glu Asn Tyr Arg Ile Asn  
 115 120 125

Gly

1483

&lt;210&gt; 1412

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1412

Val Thr Val Pro Ser Ser Ser Ala Ala Gly Thr Leu Phe Gln Gly Leu  
 1 5 10 15  
 Cys Gly Ala Pro Asp Ala Pro His Pro Leu Ser Lys Ile Pro Gly Gly  
 20 25 30  
 Arg Gly Gly Gly Arg Asp Pro Ser Leu Ser Ala Leu Ile Tyr Lys Asp  
 35 40 45  
 Glu Lys Leu Thr Val Thr Gln Asp Leu Pro Val Asn Asp Gly Lys Pro  
 50 55 60  
 His Ile Val His Phe Gln Tyr Glu Val Thr Glu Val Lys Val Ser Ser  
 65 70 75 80  
 Trp Asp Ala Val Leu Ser Ser Gln Ser Leu Phe Val Glu Ile Pro Asp  
 85 90 95  
 Gly Leu Leu Ala Asp Gly Ser Lys Glu Gly Leu Leu Ala Leu Leu Glu  
 100 105 110  
 Phe Ala Glu Glu Lys Met Lys Val Asn Tyr Val Phe Ile Cys Phe Arg  
 115 120 125  
 Lys Gly Arg Glu Asp Arg Ala Pro Leu Leu Lys Thr Phe Ser Phe Leu  
 130 135 140  
 Gly Phe Glu Ile Val Arg Pro Gly His Pro Cys Val Pro Ser Arg Pro  
 145 150 155 160  
 Asp Val Met Phe Met Val Tyr Pro Leu Asp Gln Asn Leu Ser Asp Glu  
 165 170 175  
 Asp

&lt;210&gt; 1413

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1484

&lt;400&gt; 1413

Ser Gly Leu Arg Leu Ala Met Ser Thr Asn Asn Met Ser Asp Pro Arg  
 1 5 10 15

Arg Pro Asn Lys Val Leu Arg Tyr Lys Pro Pro Pro Ser Glu Cys Asn  
 20 25 30

Pro Ala Leu Asp Asp Pro Thr Pro Asp Tyr Met Asn Leu Leu Gly Met  
 35 40 45

Ile Phe Ser Met Cys Gly Leu Met Leu Lys Leu Lys Trp Cys Ala Trp  
 50 55 60

Val Ala Val Tyr Cys Ser Phe Ile Ser Phe Ala Asn Ser Arg Ser Ser  
 65 70 75 80

Glu Asp Thr Lys Gln Met Met Ser Ser Phe Met Leu Ser Ile Ser Ala  
 85 90 95

Val Val Met Ser Tyr Leu Gln Asn Pro Gln Pro Met Thr Pro Pro Trp  
 100 105 110

&lt;210&gt; 1414

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1414

Cys Leu Gly Gly Arg Pro Arg Cys Val Leu Arg Leu Thr Ala Asn Leu  
 1 5 10 15

Glu Gly Arg Arg Asp Ser Ala Thr His Ala Pro Pro His Pro Arg Leu  
 20 25 30

Arg Val Lys Arg Ala Val Gly Pro Glu Ser Pro Pro Leu Trp Gln Trp  
 35 40 45

Pro Pro Leu Tyr Ser Ile Leu Pro Ser Gly Arg Ser Ala Val Asn Lys  
 50 55 60

Arg Trp Ala Pro Gln Ser Thr Cys Pro Pro Thr Ala Leu Ala Val Leu  
 65 70 75 80

Gly Ser Ser Leu Gln Phe Thr Gly Asn Lys Pro Glu Ser Ala Arg Thr  
 85 90 95



1485

Arg Gly Cys Ser Pro Gly Ser Ala Arg Pro Pro Leu Ser Pro Ala Thr  
                   100                  105                  110

Gly Trp Arg Cys Arg Ala Arg Ala Ala Ala Ser Arg Arg Phe Pro Gly  
                   115                  120                  125

Ala Pro Gly Pro Glu Glu Arg Ser Pro Gln Ser Lys Gly Gly Asn Thr  
                   130                  135                  140

Cys Leu Arg Cys Lys Glu Ile Leu Phe Gln Ser Ile Pro Val Val Gln  
                   145                  150                  155                  160

Thr Asp Thr Val Pro Asn Glu Arg Ser Asp Val Phe Ser Ser Pro Phe  
                   165                  170                  175

Leu Ile Cys Phe Leu Thr Gly Leu Arg Phe  
                   180                  185

&lt;210&gt; 1415

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1415

Thr Lys Thr Thr Leu Phe Leu Glu Arg Pro Leu Phe Lys Lys Glu Ser  
   1                  5                  10                  15

Ile Thr Pro Thr Val Glu Leu Asn Ala Leu Cys Met Lys Leu Gly Lys  
                   20                  25                  30

Lys Pro Met Tyr Lys Pro Val Asp Pro Tyr Ser Arg Met Xaa Ser Thr  
                   35                  40                  45

Tyr Asn Tyr Asn Met Arg Gly Gly Ala Tyr Pro Pro Arg Tyr Phe Tyr  
                   50                  55                  60

Pro Phe Pro Xaa Pro Pro Leu Leu Tyr Gln Val Glu Leu Ser Val Gly  
                   65                  70                  75                  80

1486

Gly Gln Gln Phe Asn Gly Lys Gly Lys Thr Arg Gln Ala Ala Lys His  
                     85                    90                    95

Asp Ala Ala Ala Lys Ala Val Glu Asp Pro Ala Glu  
                     100                    105

&lt;210&gt; 1416

&lt;211&gt; 621

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1416

Ala Gly His Arg Ala Gly Val Cys Ser Leu Ser Ala Thr Arg Leu Leu  
   1                    5                    10                    15

Leu Pro Lys Asp Arg Gly Val Gly Arg Arg Gln Thr Met Trp Thr Leu  
                     20                    25                    30

Val Ser Trp Val Ala Leu Thr Ala Gly Leu Val Ala Gly Thr Arg Cys  
                     35                    40                    45

Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu Asp Pro Gly Gly  
                     50                    55                    60

Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys Trp Pro Thr Thr  
   65                    70                    75                    80

Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser  
                     85                    90                    95

Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys  
                     100                    105                    110

Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His His Cys Cys Pro  
                     115                    120                    125

Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys Phe Gln Arg Ser  
                     130                    135                    140

Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu  
  145                    150                    155                    160

Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp Gly Ser Trp Gly  
                     165                    170                    175

Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg Val His Cys  
                     180                    185                    190

1487

Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr Arg Cys Ile Thr  
 195 200 205  
 Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro Ala Gln Arg Thr  
 210 215 220  
 Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys Pro Asp Ala Arg  
 225 230 235 240  
 Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu Pro Ser Gly Lys  
 245 250 255  
 Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys Ser Asp His Leu  
 260 265 270  
 His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln Ser Lys Cys  
 275 280 285  
 Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr Lys Leu Pro Ala  
 290 295 300  
 His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val Ser Cys Pro Asp  
 305 310 315 320  
 Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp Gly Cys Cys Pro  
 325 330 335  
 Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His Cys Cys Pro Ala  
 340 345 350  
 Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu Gln Gly Pro His  
 355 360 365  
 Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu Ser Leu Pro Asp  
 370 375 380  
 Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn Val Ser Ser Cys  
 385 390 395 400  
 Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly Glu Trp Gly Cys  
 405 410 415  
 Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His Gln His Cys Cys  
 420 425 430  
 Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys Gln Arg Gly Ser  
 435 440 445  
 Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg Arg Ala Ser Leu  
 450 455 460

1488

Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val  
 465 470 475 480  
 Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln  
 485 490 495  
 Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala  
 500 505 510  
 Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu Lys Glu Val Val  
 515 520 525  
 Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro His Val Gly Val  
 530 535 540  
 Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr  
 545 550 555 560  
 Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln  
 565 570 575  
 Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg  
 580 585 590  
 Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp  
 595 600 605  
 Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu Leu  
 610 615 620

&lt;210&gt; 1417

&lt;211&gt; 340

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1417

Ser Ala His Ala Ser Glu Arg Ile Ala Xaa Ser Gly Cys Gly Ala Pro  
 1 5 10 15

1489

Ala Ala Gly Ala Gly Pro Arg Xaa Arg Ser Leu Gly Ala Asp Pro Gly  
                   20                                  25                                  30

Arg Ala Ala Arg Arg His Glu Gly Gln Gly Gly Glu Gly Gly Arg Arg  
                   35                                  40                                  45

Thr Ala Gly Arg Trp Arg Arg Lys Pro Glu Lys Ser Pro Ser Ala Gln  
                   50                                  55                                  60

Glu Leu Lys Glu Gln Gly Asn Arg Leu Phe Val Gly Arg Lys Tyr Pro  
                   65                                  70                                  75                                  80

Glu Ala Ala Ala Cys Tyr Gly Arg Ala Ile Thr Arg Asn Pro Leu Val  
                                   85                                  90                                  95

Ala Val Tyr Tyr Thr Asn Arg Ala Leu Cys Tyr Leu Lys Met Gln Gln  
                   100                                  105                                  110

His Glu Gln Ala Leu Ala Asp Cys Arg Arg Ala Leu Glu Leu Asp Gly  
                   115                                  120                                  125

Gln Ser Val Lys Ala His Phe Phe Leu Gly Gln Cys Gln Leu Glu Met  
                   130                                  135                                  140

Glu Ser Tyr Asp Glu Ala Ile Ala Asn Leu Gln Arg Ala Tyr Ser Leu  
                   145                                  150                                  155                                  160

Ala Lys Glu Gln Arg Leu Asn Phe Gly Asp Asp Ile Pro Ser Ala Leu  
                                   165                                  170                                  175

Arg Ile Ala Lys Lys Lys Arg Trp Asn Ser Ile Glu Glu Arg Arg Ile  
                   180                                  185                                  190

His Gln Glu Ser Glu Leu His Ser Tyr Leu Ser Arg Leu Ile Ala Ala  
                   195                                  200                                  205

Glu Arg Glu Arg Glu Leu Glu Glu Cys Gln Arg Asn His Glu Gly Asp  
                   210                                  215                                  220

Glu Asp Asp Ser His Val Arg Ala Gln Gln Ala Cys Ile Glu Ala Lys  
                   225                                  230                                  235                                  240

His Asp Lys Tyr Met Ala Asp Met Asp Glu Leu Phe Ser Gln Val Asp  
                                   245                                  250                                  255

Glu Lys Arg Lys Lys Arg Asp Ile Pro Asp Tyr Leu Cys Gly Lys Ile  
                   260                                  265                                  270

Ser Phe Glu Leu Met Arg Glu Pro Cys Ile Thr Pro Ser Gly Ile Thr  
                   275                                  280                                  285

1490

Tyr Asp Arg Lys Asp Ile Glu Glu His Leu Gln Arg Val Gly His Phe  
 290 295 300

Asp Pro Val Thr Arg Ser Pro Leu Thr Gln Glu Gln Leu Ile Pro Asn  
 305 310 315 320

Leu Ala Met Lys Glu Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp  
 325 330 335

Val Glu Asp Tyr  
 340

<210> 1418

<211> 235

<212> PRT

<213> Homo sapiens

<400> 1418

Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala Arg Arg Pro  
 1 5 10 15

Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro Leu Arg Ser  
 20 25 30

Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg Cys Gly Leu  
 35 40 45

Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu Ser Ala  
 50 55 60

Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp Leu Gln Ser  
 65 70 75 80

Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys Ser Gln Glu  
 85 90 95

Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser Leu Met Glu  
 100 105 110

Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys Gly Phe Ile  
 115 120 125

Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu Cys Gly Pro  
 130 135 140

Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu Ala Leu Ala  
 145 150 155 160

Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val Lys Tyr Thr

1491

	165		170		175
Gln Thr Phe Thr Leu His Ala Asn Arg Ala Val Thr Tyr Ile Tyr Asn					
	180		185		190
Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu Ile Gly Cys					
	195		200		205
Ala Phe Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp Leu Leu Gly					
	210		215		220
Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala					
	225		230		235

&lt;210&gt; 1419

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1419

Arg Arg Gln Ala Leu Gln Glu Arg Cys Pro Phe Asn Pro Leu Ser Ala					
1	5		10		15
Leu Asp Arg Arg Cys Cys Val Lys Leu Leu Met Asp Ile Tyr Met Arg					
	20		25		30
Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Phe Leu Thr Gly					
	35		40		45
Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys Val Tyr					
	50		55		60
Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala Ala Pro					
	65		70		75
					80
His Ile Gln Ser Arg Ser					
	85				

&lt;210&gt; 1420

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1420

Thr Trp Cys Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg				
1	5		10	15

1492

Thr Leu Pro Ser Arg Val Phe His Pro Ala Phe Thr Lys Ala Ser Pro  
 20 25 30  
 Val Val Lys Asn Ser Ile Thr Lys Asn Gln Trp Leu Leu Thr Pro Ser  
 35 40 45  
 Arg Glu Tyr Ala Thr Lys Thr Arg Ile Gly Ile Arg Arg Gly Arg Thr  
 50 55 60  
 Gly Gln Glu Leu Lys Glu Ala Ala Leu Glu Pro Ser Met Glu Lys Ile  
 65 70 75 80  
 Phe Lys Ile Asp Gln Met Gly Arg Trp Phe Val Ala Gly Gly Ala Ala  
 85 90 95  
 Val Gly Leu Gly Ala Leu Cys Tyr Tyr Gly Leu Gly Leu Ser Asn Glu  
 100 105 110  
 Ile Gly Ala Ile Glu Lys Ala Val Ile Trp Pro Gln Tyr Val Lys Asp  
 115 120 125  
 Arg Ile His Ser Thr Tyr Met Tyr Leu Ala Gly Ser Ile Gly Leu Thr  
 130 135 140  
 Ala Leu Ser Ala Ile Ala Ile Ser Arg Thr Pro Val Leu Met Asn Phe  
 145 150 155 160  
 Met Met Arg Gly Ser Trp Val Thr Ile Gly Val Thr Phe Ala Ala Met  
 165 170 175  
 Val Gly Ala Gly Met Leu Val Arg Ser Ile Pro Tyr Asp Gln Ser Pro  
 180 185 190  
 Gly Pro Lys His Leu Ala Trp Leu Leu His Ser Gly Val Met Gly Ala  
 195 200 205  
 Val Val Ala Pro Leu Thr Ile Leu Gly Gly Pro Leu Leu Ile Arg Ala  
 210 215 220  
 Ala Trp Tyr Thr Ala Gly Ile Val Gly Gly Leu Ser Thr Val Ala Met  
 225 230 235 240  
 Cys Ala Pro Ser Glu Lys Phe Leu Asn Met Gly Ala Pro Leu Gly Val  
 245 250 255  
 Gly Leu Gly Leu Val Phe Val Ser Ser Leu Gly Ser Met Phe Leu Pro  
 260 265 270  
 Pro Thr Thr Val Ala Gly Ala Thr Leu Tyr Ser Val Ala Met Tyr Gly  
 275 280 285



1493

Gly Leu Val Leu Phe Ser Met Phe Leu Leu Tyr Asp Thr Gln Lys Val  
 290 295 300

Ile Lys Arg Ala Glu Val Ser Pro Met Tyr Gly Val Gln Lys Tyr Asp  
 305 310 315 320

Pro Ile Asn Ser Met Leu Ser Ile Tyr Met Asp Thr Leu Asn Ile Phe  
 325 330 335

Met Arg Val Ala Thr Met Leu Ala Thr Gly Gly Asn Arg Lys Lys  
 340 345 350

<210> 1421

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1421

Cys Gly Xaa Leu Leu Met Ala Gln Gly Leu Ser Ala Ser Ala Leu Glu  
 1 5 10 15

Gly Leu Lys Thr Glu Glu Gly Ser Val Arg Gly Ala Leu Pro Ala Val  
 20 25 30

Ser Ser Pro Pro Ala Pro Val Ser Pro Ser Ser Pro Thr Thr His Asn  
 35 40 45

Gly Glu Leu Glu Pro Ser Phe Ser Pro Leu Leu Gly Glu Gly Lys Thr  
 50 55 60

Pro Glu Thr Leu Leu Pro Gln Lys Cys Trp Gly Gln Gly Gly Pro Gly  
 65 70 75 80

Arg

<210> 1422

<211> 484

<212> PRT

<213> Homo sapiens

<400> 1422

1494

Ala	Cys	Arg	Ser	Thr	Leu	Val	Asp	Pro	Lys	Asn	Ser	Ala	Gln	Glu	Arg	1	5	10	15
Arg	Ala	Leu	Gly	Pro	Leu	Pro	Pro	Cys	Ser	Phe	Ala	Leu	Gln	Leu	Gly	20	25	30	
Met	Ala	Gly	Tyr	Leu	Arg	Val	Val	Arg	Ser	Leu	Cys	Arg	Ala	Ser	Gly	35	40	45	
Ser	Arg	Pro	Ala	Trp	Ala	Pro	Ala	Ala	Leu	Thr	Ala	Pro	Thr	Ser	Gln	50	55	60	
Glu	Gln	Pro	Arg	Arg	His	Tyr	Ala	Asp	Lys	Arg	Ile	Lys	Val	Ala	Lys	65	70	75	80
Pro	Val	Val	Glu	Met	Asp	Gly	Asp	Glu	Met	Thr	Arg	Ile	Ile	Trp	Gln	85	90	95	
Phe	Ile	Lys	Glu	Lys	Leu	Ile	Leu	Pro	His	Val	Asp	Ile	Gln	Leu	Lys	100	105	110	
Tyr	Phe	Asp	Leu	Gly	Leu	Pro	Asn	Arg	Asp	Gln	Thr	Asp	Asp	Gln	Val	115	120	125	
Thr	Ile	Asp	Ser	Ala	Leu	Ala	Thr	Gln	Lys	Tyr	Ser	Val	Ala	Val	Lys	130	135	140	
Cys	Ala	Thr	Ile	Thr	Pro	Asp	Glu	Ala	Arg	Val	Glu	Glu	Phe	Lys	Leu	145	150	155	160
Lys	Lys	Met	Trp	Lys	Ser	Pro	Asn	Gly	Thr	Ile	Arg	Asn	Ile	Leu	Gly	165	170	175	
Gly	Thr	Val	Phe	Arg	Glu	Pro	Ile	Ile	Cys	Lys	Asn	Ile	Pro	Arg	Leu	180	185	190	
Val	Pro	Gly	Trp	Thr	Lys	Pro	Ile	Thr	Ile	Gly	Arg	His	Ala	His	Gly	195	200	205	
Asp	Gln	Tyr	Lys	Ala	Thr	Asp	Phe	Val	Ala	Asp	Arg	Ala	Gly	Thr	Phe	210	215	220	
Lys	Met	Val	Phe	Thr	Pro	Lys	Asp	Gly	Ser	Gly	Val	Lys	Glu	Trp	Glu	225	230	235	240
Val	Tyr	Asn	Phe	Pro	Ala	Gly	Gly	Val	Gly	Met	Gly	Met	Tyr	Asn	Thr	245	250	255	
Asp	Glu	Ser	Ile	Ser	Gly	Phe	Ala	His	Ser	Cys	Phe	Gln	Tyr	Ala	Ile	260	265	270	

1495

Gln Lys Lys Trp Pro Leu Tyr Met Ser Thr Lys Asn Thr Ile Leu Lys  
           275                          280                          285  
 Ala Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Ile Phe Asp Lys  
           290                          295                          300  
 His Tyr Lys Thr Asp Phe Asp Lys Asn Lys Ile Trp Tyr Glu His Arg  
 305                          310                          315                          320  
 Leu Ile Asp Asp Met Val Ala Gln Val Leu Lys Ser Ser Gly Gly Phe  
                           325                          330                          335  
 Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Ile Leu  
                           340                          345                          350  
 Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Val Cys  
           355                          360                          365  
 Pro Asp Gly Lys Thr Ile Glu Ala Glu Ala Ala His Gly Thr Val Thr  
           370                          375                          380  
 Arg His Tyr Arg Glu His Gln Lys Gly Arg Pro Thr Ser Thr Asn Pro  
 385                          390                          395                          400  
 Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Gly Lys  
                           405                          410                          415  
 Leu Asp Gly Asn Gln Asp Leu Ile Arg Phe Ala Gln Met Leu Glu Lys  
                           420                          425                          430  
 Val Cys Val Glu Thr Val Glu Ser Gly Ala Met Thr Lys Asp Leu Ala  
           435                          440                          445  
 Gly Cys Ile His Gly Leu Ser Asn Val Lys Leu Asn Glu His Phe Leu  
           450                          455                          460  
 Asn Thr Thr Asp Phe Leu Asp Thr Ile Lys Ser Asn Leu Asp Arg Ala  
 465                          470                          475                          480  
 Leu Gly Arg Gln

&lt;210&gt; 1423

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1496

&lt;222&gt; (153)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1423

Val	Arg	Ile	Pro	Gly	Ser	Thr	His	Ala	Ser	Gly	Gly	Gly	Asp	Gly	Asp	1	5	10	15
Met	Glu	Ser	Gly	Ala	Tyr	Gly	Ala	Ala	Lys	Ala	Gly	Gly	Ser	Phe	Asp	20	25	30	
Leu	Arg	Arg	Phe	Leu	Thr	Gln	Pro	Gln	Val	Val	Ala	Arg	Ala	Val	Cys	35	40	45	
Leu	Val	Phe	Ala	Leu	Ile	Val	Phe	Ser	Cys	Ile	Tyr	Gly	Glu	Gly	Tyr	50	55	60	
Ser	Asn	Ala	His	Glu	Ser	Lys	Gln	Met	Tyr	Cys	Val	Phe	Asn	Arg	Asn	65	70	75	80
Glu	Asp	Ala	Cys	Arg	Tyr	Gly	Ser	Ala	Ile	Gly	Val	Leu	Ala	Phe	Leu	85	90	95	
Ala	Ser	Ala	Phe	Phe	Leu	Val	Val	Asp	Ala	Tyr	Phe	Pro	Gln	Ile	Ser	100	105	110	
Asn	Ala	Thr	Asp	Arg	Lys	Tyr	Leu	Val	Ile	Gly	Asp	Leu	Leu	Phe	Ser	115	120	125	
Ala	Leu	Trp	Thr	Phe	Leu	Trp	Phe	Val	Gly	Phe	Cys	Phe	Leu	Thr	Asn	130	135	140	
Gln	Trp	Ala	Val	Thr	Asn	Pro	Lys	Xaa	Val	Leu	Val	Gly	Ala	Asp	Ser	145	150	155	160
Val	Arg	Ala	Ala	Ile	Thr	Phe	Ser	Phe	Phe	Ser	Ile	Phe	Ser	Trp	Gly	165	170	175	
Val	Leu	Ala	Ser	Leu	Ala	Tyr	Gln	Arg	Tyr	Lys	Ala	Gly	Val	Asp	Asp	180	185	190	
Phe	Ile	Gln	Asn	Tyr	Val	Asp	Pro	Thr	Pro	Asp	Pro	Asn	Thr	Ala	Tyr	195	200	205	
Ala	Ser	Tyr	Pro	Gly	Ala	Ser	Val	Asp	Asn	Tyr	Gln	Gln	Pro	Pro	Phe	210	215	220	
Thr	Gln	Asn	Ala	Glu	Thr	Thr	Glu	Gly	Tyr	Gln	Pro	Pro	Pro	Val	Tyr	225	230	235	240

1497

&lt;210&gt; 1424

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (221)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1424

Arg	Val	Arg	Arg	Gln	Ser	Ser	Gly	Asn	Leu	Thr	Met	Ala	Trp	Thr	Pro
1				5					10					15	

Leu	Leu	Leu	Pro	Leu	Leu	Thr	Phe	Cys	Thr	Val	Ser	Glu	Ala	Ser	Tyr
			20					25						30	

Glu	Leu	Thr	Gln	Pro	Pro	Ser	Val	Ser	Val	Ser	Pro	Gly	Gln	Thr	Ala
		35				40						45			

Arg	Ile	Thr	Cys	Ser	Gly	Asp	Ala	Leu	Pro	Xaa	Lys	Tyr	Xaa	Tyr	Trp
	50					55					60				

Tyr	Gln	Gln	Lys	Ser	Gly	Gln	Ala	Pro	Val	Leu	Val	Ile	Tyr	Glu	Asp
65					70					75				80	

Thr	Arg	Arg	Pro	Ser	Ala	Ile	Pro	Glu	Arg	Phe	Ser	Ala	Ser	Ser	Ser
			85						90					95	

Gly	Thr	Met	Ala	Thr	Leu	Thr	Ile	Ser	Gly	Ala	Gln	Val	Glu	Asp	Glu
		100					105						110		

Ala	Asp	Tyr	Tyr	Cys	Tyr	Ser	Thr	Asp	Ser	Ser	Ser	Tyr	Tyr	Arg	Val
		115					120					125			

Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly	Gln	Pro	Lys	Ala	Ala
	130					135						140			

1498

Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn  
145 150 155 160

Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val  
165 170 175

Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu  
180 185 190

Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser  
195 200 205

Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Xaa Ser Tyr Ser  
210 215 220

Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro  
225 230 235 240

Thr Glu Cys Ser

&lt;210&gt; 1425

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (159)

1499

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1425

Xaa	Val	Arg	Val	Gln	Thr	Arg	Gly	Ser	Ala	Asp	Pro	Ala	Gln	Leu	Arg
1				5					10					15	

Arg	His	Pro	Gly	Tyr	Lys	Arg	Thr	Ala	Ser	Ala	Thr	Leu	Ser	Asp	Pro
			20					25					30		

Ala	Ala	Ala	Ala	Met	Gln	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Ala	Leu	Cys
			35				40					45			

Leu	Leu	Ala	Ala	Pro	Ala	Ser	Ala	Leu	Val	Arg	Ile	Pro	Leu	His	Lys
	50					55					60				

Phe	Thr	Ser	Ile	Arg	Arg	Thr	Met	Ser	Glu	Val	Gly	Gly	Ser	Val	Glu
65				70					75					80	

Asp	Leu	Ile	Ala	Lys	Gly	Pro	Val	Ser	Lys	Tyr	Ser	Gln	Ala	Val	Pro
				85					90					95	

Ala	Val	Thr	Glu	Gly	Pro	Ile	Pro	Glu	Val	Leu	Lys	Asn	Tyr	Met	Asp
			100					105						110	

Ala	Gln	Xaa	Tyr	Gly	Glu	Ile	Gly	Ile	Gly	Thr	Pro	Pro	Gln	Cys	Phe
	115					120						125			

Thr	Val	Val	Phe	Asp	Thr	Gly	Xaa	Xaa	Asn	Leu	Trp	Val	Pro	Ser	Ile
	130					135					140				

His	Cys	Lys	Leu	Leu	Asp	Ile	Ala	Cys	Trp	Ile	His	His	Lys	Xaa	Asn
145					150					155				160	

Ser	Asp	Lys	Ser	Ser	Asn	Tyr	Val	Lys	Asn	Gly	Asn	Ser
				165					170			

&lt;210&gt; 1426

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1426

Ile	Arg	His	Glu	Ile	Leu	Trp	Leu	Leu	Cys	Ser	His	Arg	Pro	Ala	Pro
1				5					10					15	

1500

Gly Arg Pro Pro Thr His Asn Ala His Asn Trp Arg Leu Gly Gln Ala  
                   20                  25                  30  
 Pro Ala Xaa Trp Tyr Asn Asp Thr Tyr Pro Leu Ser Pro Pro Gln Arg  
                   35                  40                  45  
 Thr Pro Ala Gly Ile Arg Tyr Arg Ile Ala Val Ile Ala Asp Leu Asp  
                   50                  55                  60  
 Thr Glu Ser Arg Ala Gln Glu Glu Asn Thr Trp Phe Ser Tyr Leu Lys  
                   65                  70                  75                  80  
 Lys Gly Tyr Leu Thr Leu Ser Asp Ser Gly Asp Lys Val Ala Val Glu  
                   85                  90                  95  
 Trp Asp Lys Asp His Gly Val Leu Glu Ser His Leu Ala Glu Lys Gly  
                   100                  105                  110  
 Arg Gly Met Glu Leu Ser Asp Leu Ile Val Phe Asn Gly Lys Leu Tyr  
                   115                  120                  125  
 Ser Val Asp Asp Arg Thr Gly Val Val Tyr Gln Ile Glu Gly Ser Lys  
                   130                  135                  140  
 Ala Val Pro Trp Val Ile Leu Ser Asp Gly Asp Gly Thr Val Glu Lys  
                   145                  150                  155                  160  
 Gly Phe Lys Ala Glu Trp Leu Ala Val Lys Asp Glu Arg Leu Tyr Val  
                   165                  170                  175  
 Gly Gly Leu Gly Lys Glu Trp Thr Thr Thr Thr Gly Asp Val Val Asn  
                   180                  185                  190  
 Glu Asn Pro Glu Trp Val Lys Val Val Gly Tyr Lys Gly Ser Val Asp  
                   195                  200                  205  
 His Glu Asn Trp Val Ser Asn Tyr Asn Ala Leu Arg Ala Ala Ala Gly  
                   210                  215                  220  
 Ile Gln Pro Pro Gly Tyr Leu Ile His Glu Ser Ala Cys Trp Ser Asp  
                   225                  230                  235                  240  
 Thr Leu Gln Arg Trp Phe Phe Leu Pro Arg Arg Ala Ser Gln Glu Arg  
                   245                  250                  255  
 Tyr Ser Glu Lys Asp Asp Glu Arg Lys Gly Ala Asn Leu Leu Leu Ser  
                   260                  265                  270  
 Ala Ser Pro Asp Phe Gly Asp Ile Ala Val Ser His Val Gly Ala Val  
                   275                  280                  285